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**QUARTERLY MONITORING REPORT  
ACTIVE TREATMENT SYSTEMS  
FIRST QUARTER 2009**

**AMERICAN CHEMICAL SERVICE NPL SITE  
GRIFFITH, INDIANA**

**MWH File No. 4050577**

**Prepared For:**

**American Chemical Service NPL Site RD/RA Executive Committee  
Griffith, Indiana**

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**July 2009**

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## ACRONYMS AND ABBREVIATIONS

ACS	American Chemical Service
AMSL	Above Mean Sea Level
AS	Air Sparge
BOD	Biological Oxygen Demand
BW	Barrier Wall
BWES	Barrier Wall Extraction System
cfm	cubic feet per minute
DL	Detection Limit
DPE	Dual Phase Extraction
GAC	Granular Activated Carbon
Global	Global Technologies
GWTP	Groundwater Treatment Plant
"Hg	Inches of mercury
"H <sub>2</sub> O	Inches of water
IDEM	Indiana Department of Environmental Management
ISVE	In-situ Soil Vapor Extraction
K-P	Kapica Pazmey
lb/day	Pounds per day
lb/hr	Pounds per hour
LDC	Laboratory Data Consultants
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
MWH	MWH Americas, Inc.
NC	Not Calculated
ND	Not Detected
NE	No Effluent Limit Established
NPL	National Priorities List
NS	Not Sampled
OFCA	Off-Site Containment Area
PCBs	Polychlorinated Biphenyls
PID	Photoionization Detector
PGCS	Perimeter Groundwater Containment System
ppm	Parts per million
PSVP	Performance Standard Verification Plan
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
SBPA	Still Bottoms Pond Area
SVOCs	Semi-Volatile Organic Compounds
T-102	Aeration Equalization Tank (Tank – 102)
Therm Ox 1	Thermal Oxidizer/Scrubber Unit 1
Therm Ox 2	Thermal Oxidizer/Scrubber Unit 2
TOC	Top of Casing
TOIC	Top of Inner Casing

TOSG	Top of Staff Gauge
TSS	Total Suspended Solids
$\mu\text{g}$	Micrograms
$\mu\text{g}/\text{kg}$	Micrograms per kilogram
$\mu\text{g}/\text{L}$	Micrograms per liter
U.S. EPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

## **1.0 INTRODUCTION**

MWH Americas, Inc. (MWH), on behalf of the American Chemical Service (ACS) Executive Committee, started up the on-site groundwater treatment system at the ACS National Priorities List (NPL) Site (ACS Site) in Griffith, Indiana on March 13, 1997. The groundwater treatment plant (GWTP) system was designed to treat groundwater from the Perimeter Groundwater Containment System (PGCS) and the Barrier Wall Extraction System (BWES). The original treatment consisted of a phase-separator for oil and free product removal, equalization tanks, an UV oxidation unit for destruction of organic constituents, and an air stripper to remove methylene chloride and other organics. The treatment also included a chemical precipitation and clarification unit to remove metals, a sand filter to remove suspended solids, and activated carbon vessels for final polishing of the treated groundwater before it was released to the west of the Site.

In 2001, an activated sludge treatment unit was added to the process to reduce the volatile and semivolatile organic compounds (VOCs and SVOCs) in the collected groundwater. The activated sludge treatment process also reduces the amount of activated carbon required to treat the water. An aerated equalization tank was also added to the GWTP in 2001 to remove VOCs from the collected groundwater, oxidize metals to increase metals removal efficiency in the chemical precipitation unit, and equalize groundwater flow through the GWTP. The activated sludge system and aeration tank have been fully integrated into the process along with the other upgrade components. Startup and optimization of the catalytic oxidizer/scrubber air treatment unit was also conducted during 2001.

The treated effluent from the treatment system is discharged to the nearby wetlands, west of the treatment system, in accordance with Agency approvals.

Operation of the In-situ Soil Vapor Extraction (ISVE) system for the Off-Site Containment Area (OFCA) and the Kapica-Pazmey (K-P) Area began on May 1, 2002. Operation of the ISVE system for the Still Bottoms Pond Area (SBPA) began in July 2003. The ISVE systems were designed to remove volatile and semi-volatile compounds from the subsurface media.

The Off-Site Area ISVE system consists of 42 ISVE wells, 3 air sparge wells, ISVE and air sparge blower systems, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. Protocols and goals for the phased startup of the Off-Site System as defined in the Final Remedy (Montgomery Watson, 1999) were followed. In 2004, an additional blower unit was added to the Off-Site Area ISVE system to more effectively meet the design objectives of the system. The additional blower increased the capacity of the Off-Site ISVE system from 1,000 to 2,000 cubic feet per minute (cfm).

The SBPA ISVE system consists of 25 ISVE wells, 21 dual-phase extraction (DPE) wells, 6 air sparge wells, ISVE and air sparge blower systems, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. During the first 12 months of system operation, the performance of the ISVE system was evaluated. Based on this evaluation, the

SBPA ISVE system was enhanced in accordance with the United States Environmental Protection Agency (U.S. EPA) and Indiana Department of Environmental Management (IDEM) approval by reconfiguring 18 of the ISVE wells to allow injection of air. Air for the injection wells is directed from blower ME-102/103 at the GWTP to the SBPA ISVE blower shed. The air injection system, which consists of three groups of five injection wells, began operation in December 2005. The air injection wells are typically rotated among the three well groups on a monthly basis with only one well group operating at a time. However, only one air injection group has been operating since August 2008. This group is targeting wells with historically higher VOC concentrations in order to optimize VOC removal.

This report summarizes GWTP effluent analytical data and thermal oxidizer off-gas analytical data, ISVE process monitoring data, and water level gauging data collected from January 2009 through March 2009. The report also details modifications and upgrades that were made to the active treatment systems during the reporting period.

## 2.0 GWTP COMPLIANCE MONITORING

### 2.1 SAMPLING REQUIREMENTS

Effluent samples are collected on a regular schedule from the treatment system to demonstrate compliance with the discharge limits (**Table 2.1**) established by the Indiana Department of Environmental Management (IDEM) and the United States Environmental Protection Agency (U.S. EPA). The approved Performance Standard Verification Plan for the PGCS (PSVP) (Montgomery Watson, July 1997) requires quarterly effluent sampling for biochemical oxygen demand (BOD), total suspended solids (TSS), SVOCs, metals, and polychlorinated biphenyls (PCBs) in the system, and monthly effluent sampling for pH and VOCs, as tabulated below. In accordance with the PSVP, a full analysis effluent compliance sample was collected during January 2009 and analyzed for all of the analytes listed above. During February and March 2009, the monthly effluent compliance samples were analyzed for VOCs and pH only also in accordance with the PSVP.

Sampling and analyses were performed in accordance with the approved Quality Assurance Project Plan (QAPP) (Montgomery Watson Harza, November 2001) and Addendum No. 1 to the QAPP (MWH, April 2007) during the reporting period. Quality control measures were also instituted in accordance with the PSVP. The following table and paragraphs present details on sampling and analyses and also summarize the analytical data for the treatment system effluent.

**Sampling Frequency Schedule – Groundwater Treatment System**

Analytes	Cumulative Time From Startup*	Frequency
Flowrate	–	Continuous
BOD, TSS, SVOCs and Metals	181 days onward	Once per quarter
VOCs and Ph	31 days onward	Once per month
PCBs	181 days onward	Once per quarter
PCBs in Sediment (one location)	–	Once per year

\*Note: System operation began on March 13, 1997

### 2.2 EFFLUENT SAMPLING AND ANALYSES

Effluent samples were collected each month during the first quarter of 2009. Samples were collected on the following dates and analyzed for the listed analytes for this reporting period:

- |                   |  |
|-------------------|--|
| January 15, 2009  | Full analysis (pH, TSS, BOD, Metals, VOCs, SVOCs, pentachlorophenol, and PCBs) |
| February 12, 2009 | pH and VOCs  |
| March 5, 2009     | pH and VOCs  |

The above samples were collected directly from a sampling port on the effluent line of the treatment system. The samples were placed in contaminant-free containers, in accordance with the *U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers* (U.S. EPA, 1992). Appropriate sample containers and preservatives, as specified in the QAPP, were used to collect and preserve the samples. Following sample collection, the temperature of the sample containers was maintained at or below 4° C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories. In accordance with the approved QAPP, the effluent water samples were analyzed for the following parameters by the following analytical methods:

<u>Parameter</u>	<u>Analytical Method</u>
VOCs	SW-846 8260B
SVOCs	SW-846 8270C
Pentachlorophenol	SW-846 8270C and SIM
Pesticides/PCBs	EPA 608/SW-846 8081/8082
Metals (Excluding Mercury)	
General Water Quality	SW-846 6010
Parameters (TSS and BOD-5)	EPA 160.2 and 405.1
Mercury	SW-846 7470
pH	EPA 150.1

## 2.3 EFFLUENT ANALYTICAL RESULTS

### 2.3.1 GWTP Effluent Samples

The GWTP effluent monitoring data summarized in [Table 2.2](#), verify that the system effluent was compliant with the discharge limits summarized in [Table 2.1](#). No effluent exceedences were reported in the January, February, or March samples.

Microbac Laboratory of Merrillville, Indiana performed the analysis of the samples. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the U.S. EPA National Functional Guidelines for Organic/Inorganic Data Review (U.S. EPA, February 1994 and October 1999). Validation qualifiers are listed in [Table 2.2](#) and are written in the margin of the analytical data sheets provided in [Appendix A](#).

## 2.4 ANNUAL SEDIMENT SAMPLE ANALYTICAL RESULTS

Since 1998, MWH has collected an annual sediment sample and associated quality control samples from the GWTP outfall in accordance with the PSVP to help determine if PCB accumulation is occurring at the GWTP discharge location. The annual sediment sample for 2009 was collected on March 24<sup>th</sup> from the GWTP outfall location, shown on [Figure 2.1](#). The sample was analyzed for PCBs by Microbac and the data was validated by LDC.

The analytical data for the annual sediment samples for the past eleven years are summarized in [Table 2.3](#). Analytical data for the March 2009 sample are included in [Appendix C](#). One aroclor, Aroclor-1254, was detected in the March 2009 primary and duplicate samples at concentrations of 57 ug/kg and 99 ug/kg, respectively. These concentrations are below the action level of 1,000 ug/kg. They are also within the range of background PCB concentrations as determined in the Remedial Investigation. MWH will continue to collect annual sediment samples at the GWTP discharge location to monitor any possible PCB accumulation.

## 3.0 ISVE SYSTEM MONITORING

### 3.1 THERMAL OXIDIZER OFF-GAS SAMPLING

During the first quarter of 2009, Thermal Oxidizer/Scrubber Unit 1 (Therm Ox 1) was used to treat vapors from the SBPA ISVE system and Thermal Oxidizer/Scrubber Unit 2 (Therm Ox 2) was used to treat vapors from the Off-Site ISVE system and T-102. Monthly VOC removal rates are illustrated in [Figure 3.1](#) and the total VOCs removed are shown on [Figure 3.2](#). Compliance samples were collected from the thermal oxidizer/scrubber units on January 29th, February 12th, and March 10th.

Influent and effluent off-gas samples were collected directly from sampling ports on the influent pipe to the thermal oxidizer and the discharge stack of the scrubber. One influent sample and one effluent sample were collected. A duplicate influent sample was also collected. The samples were collected to comply with the PSVP and QAPP and in accordance with laboratory guidelines. The VOC samples were collected using a Summa canister and the SVOC samples were collected in sorbent tubes.

#### Sampling Frequency Schedule – ISVE System

Startup	Weekly for a four week period
Post-Startup	Monthly in accordance with the IDEM Air Permit Equivalency

Following sample collection, the sorbent tubes were placed in coolers and maintained at or below 4°C for shipment. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment plant to the laboratories for extraction and analysis. In accordance with the approved QAPP and addenda, the off-gas samples were analyzed by the following analytical methods:

<u>Parameter</u>	<u>Analytical Method</u>
VOCs	TO-15
SVOCs	TO-13

Per Addendum No. 1 to the QAPP (MWH, April 2007), Microbac Laboratory of Merrillville, Indiana is now the primary analytical laboratory for air analyses for the project. Microbac performs VOC analysis by Method TO-15.

### 3.2 SAMPLING RESULTS

The influent and effluent off-gas data are collected to verify that the off-gas from both of the thermal oxidizers was less than the IDEM discharge limit of three pounds of VOCs per hour (lbs/hr) and 15 pounds per day (lbs/day) for January, February, and March. The highest VOC discharge rate observed during these sampling events was the January 29, 2009 Therm

Ox 2 sample, which was measured at 0.178 pounds per hour or 4.27 pounds per day. Both of these rates are below the corresponding discharge limits. Therefore, it can be concluded that the ISVE systems are performing well within discharge limits for air emissions.

VOC discharge values for Therm Ox 1, Therm Ox 2, and the SBPA and Off-Site ISVE system are presented in [Tables 3.1 through 3.9](#). The analytical data sheets for the compliance samples are provided in [Appendix B](#). In addition to the off-gas data collected during the first quarter, MWH collected off-gas samples from the Off-Site ISVE system and the SBPA ISVE system influent lines. These samples were collected in order to comply with the PSVP.

Microbac Laboratory of Merrillville, Indiana analyzed all of the vapor samples. The analytical results are summarized in [Tables 3.1 through 3.18](#). Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the QAPP and the National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in the tables and are written in the margin of the analytical data sheets provided in [Appendix B](#).

### **3.3 ISVE SYSTEM MONITORING**

Performance monitoring of the ISVE system was conducted in accordance with the PSVP (Montgomery Watson, June 1999). Extracted vapor flow rates and vacuum pressures at individual ISVE wells and headers were measured and recorded on a routine basis. Additionally, VOC concentrations were measured at individual wells and headers using a photoionization detector (PID).

The information collected during performance monitoring is used to evaluate and optimize the ISVE system. Data collected from the Off-Site ISVE system during the first quarter of 2009 are presented in [Tables 3.19 and 3.20](#). Data that were collected from the SBPA ISVE system during the first quarter of 2009 are presented in [Tables 3.21 and 3.22](#).

### **3.4 PRODUCT REMOVAL ACTIVITIES**

MWH performed product removal activities on a weekly basis from target wells in the Off-Site Area (SVE-1, SVE-2, SVE-3, SVE-10, SVE-13, SVE-14, SVE-15, SVE-18, SVE-19, SVE-26, SVE-27, SVE-29, SVE-30, SVE-31, and SVE-36) beginning in February 2009. Beginning in March 2009, product was removed from target wells in the SBPA area (SVE -52, SVE-53, SVE-61, SVE-62, SVE-72, SVE-81, and SVE-88) in addition to the target wells in the Off-Site area. Product removal is performed using a large vacuum hose which transfers the free product to 55-gallon steel drums stored on a portable trailer. Approximately 365 gallons of product were removed from Off-Site wells and 30 gallons of product were removed from SBPA wells during the first quarter of 2009. The drums of product are stored at the Site temporarily until they can be shipped off site. MWH has

90 days to properly dispose of the free product removed from the wells. In May 2009, MWH shipped nine drums of product off site to be disposed of as hazardous waste.

## **4.0 GWTP PROCESS MODIFICATIONS AND REPAIRS**

### **4.1 GWTP PROCESS MODIFICATIONS**

The following modification was made to the GWTP during the first quarter of 2009:

- The aeration capacity of the T-102 blower was reduced from 400 to 200 scfm in January and has remained in this configuration. Evaluation tests showed VOC removal efficiencies of over 80% which is consistent with theoretical values. VOC removal efficiency has remained well within normal operating limits. The reduction in flow in T-102 has reduced energy usage without sacrificing VOC removal efficiency.
- Beginning in November 2008, operation of the biotank has been isolated to the smaller zone. This modification involved the shutdown of one large blower, resulting in net energy savings for the plant. The unit continues to perform well. Sludge still remains in the inactive larger aeration zone. MWH will begin sludge removal from this zone in the near future as weather conditions permit. The sludge removal activities are anticipated to take several months to complete.

### **4.2 GWTP REPAIRS AND MAINTENANCE**

The following maintenance activity was conducted at the GWTP during the first quarter of 2009:

- Miscellaneous pump repair activities were conducted during the first quarter of 2009.

## **5.0 ISVE PROCESS MODIFICATIONS AND REPAIRS**

### **5.1 ISVE PROCESS MODIFICATIONS**

The following modifications were made to the SBPA ISVE system during the first quarter of 2009:

- One set of air injection wells ran at the ACS site throughout the first quarter of 2009. MWH has maintained the well configuration put into effect on August 29, 2008. This configuration consists of a combination of air injection wells from Groups 1 and 2 (SVE-54, SVE-59, SVE-77, SVE-80, and SVE-84) to target areas of the subsurface with higher VOC concentrations. In addition, the SBPA ISVE system continues to operate with four air sparge points active.
- MWH will continue to evaluate the data collected during the monthly monitoring events to determine whether the current well configuration provides increased VOC removal or if it would be more beneficial to resume rotating among the three groups of air injection wells on a monthly basis.

No modifications were made to the Off-Site ISVE system during the first quarter of 2009.

### **5.2 ISVE REPAIRS AND MAINTENANCE**

The following maintenance activities were conducted on the ISVE systems during the first quarter of 2009:

- On December 10, 2008, the blower impeller for ThermOx 2 malfunctioned and broke apart. MWH sent a portion of the damaged unit to the manufacturer for them to conduct an investigation into the cause of the malfunction. The manufacturer's report indicated the malfunction occurred due to an incorrect alignment during installation. Replacement parts were ordered and ThermOx 2 was repaired and returned to normal operation on January 27, 2009.
- In March, a new flame sensor, spark igniter and plug, and gas regulator for the burner, were installed on Therm-Ox 1.
- ThermOx 1 was shut down in March 2009 for routine maintenance activities.

## 6.0 PGCS AND BWES GAUGING ACTIVITIES

During the operational time frame of the GWTP in the first quarter of 2009, the PGCS groundwater extraction trenches were operated in “auto” mode. In “auto” mode, the PGCS extraction wells pump continuously unless there is a low water level in individual extraction wells or a high water level in the Aeration Equalization Tank (T-102). This mode is used to control the flowrate through the treatment system, while at the same time creating an inward gradient along the PGCS trench. The GWTP also received influent from the On-Site and Off-Site components of the BWES, the SBPA DPE wells, MW-10C, MW-56, and the Lower Aquifer Pumping System during the first quarter of 2009.

In accordance with the PSVP, a discussion on the effect of the PGCS and BWES on the water table near the Site is presented in each quarterly monitoring report. This section summarizes the groundwater elevations at the Site during January, February, and March 2009. Groundwater elevation measurements were collected throughout the Site on March 20, 2009 as part of the groundwater monitoring program. The groundwater elevations are listed in **Table 6.1** and the resulting water table contours outside the barrier wall are shown on **Figure 6.1**.

The barrier wall was constructed to contain the contaminated zone under the Site and the BWES was installed to extract groundwater from within the barrier wall and dewater the Site for the ISVE system. Nine pairs of piezometers were installed, with one piezometer of each pair on either side of the barrier wall, spaced along the barrier wall alignment. This allows measurement and tracking of water levels in order to document that the barrier wall is serving its designed function.

**Table 6.1**, Water Table Elevations Across the Barrier Wall and Near the PGCS, presents the groundwater elevations inside and outside the barrier wall on March 20, 2009. The groundwater elevations are plotted on **Figure 6.2**. The groundwater elevation measurements inside the barrier wall range from 2.18 feet to 9.23 feet lower than levels outside the barrier wall. In general, the data demonstrates that the barrier wall is successfully performing the intended function of isolating and protecting the groundwater outside the barrier wall from the source areas of the Site inside the barrier wall. MWH will continue to collect water level measurements quarterly across the Site as required in the PSVP.

As part of the optimization of the GWTP and BWES upgrades, MWH began active dewatering of the Off-Site Area through increased groundwater pumping rates on September 25, 2001. Active dewatering of the SBPA (On-Site Area) began on February 11, 2003 with the addition of the DPE wells. Water levels were measured throughout the quarter at piezometer locations (P29, P31, P32, P36, and P49) in the On-Site Area and at piezometers (P96, P110, P112, P113, P114, P116, P118) and three air sparge (AS) wells (AS-7, AS-8, and AS-9) in the Off-Site Area. These locations are shown on **Figure 6.3**. The water level trend data from these piezometers and AS wells for the first quarter of 2009 are depicted graphically on **Figures 6.4** and **6.5**, which also show the target water elevations for each area. In the SBPA, the target water level is 629 feet amsl. Water

levels in two piezometer locations (P-29 and P-31) have been drawn down to below the bottom of the screens in these wells throughout the first quarter of 2009. Therefore, the depth to water measurements at these locations show straight-line measurements of the bottom of the wells. The other locations had water levels that varied from approximately 625 feet amsl to 632 feet amsl. These water levels showed a decreasing trend throughout most of the first quarter of 2009. However, water levels showed an increasing trend in March 2009. These higher water levels observed at the end of the first quarter of 2009 are likely due to the increased precipitation that occurred during this time period.

In the Off-Site ISVE area, the target water level is 626 feet amsl. Actual water levels varied from approximately 621 feet amsl to 630 feet amsl. Average water levels in the Off-Site area showed a decreasing trend throughout most of the first quarter of 2009. However, similar to water elevations in the SBPA Area, water levels in the Off-Site Area increased toward the end of the first quarter of 2009. These higher water levels are also likely due to increased precipitation in March 2009.

MWH will continue to monitor the water levels in both the SBPA and Off-Site Area to ensure vapor extraction at the ISVE wells is not inhibited.

## **7.0 SYSTEM OPERATION**

The GWTP operated as designed 98 percent of the first quarter of 2009 (based on 2,045 hours of operation out of a total of 2,088 hours). The system drew influent water from the On-Site Area BWES, the Off-Site Area BWES, the PGCS, MW-10C, MW-56, and the Lower Aquifer Pumping System.

The Off-Site Area ISVE system continued to operate as designed 78 percent of the first quarter of 2009 (based on 1,629 hours of operation out of a total of 2,088 hours). The SBPA ISVE system continued to operate as designed 35 percent of the first quarter of 2009 (based on 735 hours of operation out of a total of 2,088 hours). The majority of the downtime for the Off-Site Area ISVE system was associated with maintenance of Therm-Ox 2, and the majority of the downtime for the SBPA ISVE system was associated with maintenance of Therm-Ox 1 and low chamber temperatures in Therm-Ox 1 as a result of low VOC concentrations.

## **8.0 CONCLUSIONS AND RECOMMENDATIONS**

This section provides a summary of the operational status of the active remedial systems at the ACS NPL site for the subject period. Anticipated activities for the upcoming quarter and recommendations for system modifications are also provided.

### **8.1 GWTP OPERATION**

The GWTP continued to operate normally during the first quarter of 2009. The aeration capacity of T-102 was reduced from 400 to 200 scfm in January and has remained in this configuration. Evaluation tests showed VOC removal efficiencies of over 80% which is consistent with theoretical values.

The GWTP continued to treat water from all available sources. The list of sources was expanded in September 2007 with the completion of the Lower Aquifer Pumping System and the replacement of the pump in MW-10C.

### **8.2 ISVE OPERATION**

The ISVE systems continued to operate normally during the first quarter of 2009 with the exception of limited operating times for the SBPA ISVE system. The operational time of both systems was decreased as a result of maintenance activities conducted on the thermal oxidizers. In addition, operational times for the SBPA ISVE system were decreased as a result of low chamber temperatures in Therm-Ox 1 due to low VOC concentrations. MWH will continue to perform O&M services on the thermal oxidizer units to ensure adequate operational time for the ISVE systems. As shown in [Figure 3.1](#), the VOC removal rates (in pounds per day) were observed to be within the range previously observed.

While performance data for the ISVE systems indicates that the systems continue to be effective in treating the vadose zone soils, the data also suggests that the systems could be operated more efficiently. As the remediation has progressed, mass removal rates at some wells have become limited while rates remain higher at other locations. Going forward, MWH will make minor modifications to the operational settings under which the systems operate. Actions will be taken to achieve similar or greater VOC removal rates often at lower costs through reduced energy usage. The goal of alternate configurations would be to achieve one or more of the following objectives:

- To maximize VOC mass removal rates from the target areas;
- To concentrate the operation of the system on wells that are indicating higher levels of VOC concentrations (hot spots);
- To reduce energy (electrical and natural gas) usage rates;
- To reduce the carbon footprint of the active treatment systems;
- To reduce wear and tear on existing equipment.

Alternate system configurations include, but are not limited to:

For the Off-Site System,

1. Pulsing system operation to allow concentrations of VOCs in the subsurface to rebound.
2. Shutting down one of the two vacuum extraction blowers and concentrating operation on a reduced number of ISVE wells, excluding wells that are shown to produce lower levels of VOC concentrations.
3. Removing the caps from selected wells while vacuum is not being applied to them to promote increased air flow through the vadose zone soils from the opened wells to adjacent active extraction wells.
4. Combining the extracted vapor stream with the SBPA system in order to use only one thermal oxidizer system.

For the SBPA System,

1. Pulsing system operation to allow concentrations of VOCs in the subsurface to rebound.
2. Concentrating operation of the extraction system to a reduced number of ISVE wells, excluding wells that are shown to produce lower levels of VOC concentrations.
3. Removing the caps from selected wells while vacuum is not being applied to them to promote increased air flow through the vadose zone soils from the opened wells to adjacent active extraction wells.
4. Discontinuing the air injection regime at designated wells.
5. Reducing the extraction flow rate.

The configurations listed above are not meant to be comprehensive but represent the types of modifications that MWH may take to improve system efficiency. From time to time, other actions not identified above may be taken to achieve the same objectives. All of the potential actions would be taken in order to accomplish remedial objectives and milestones established by the Record of Decision (ROD).

### **8.3 GROUNDWATER LEVEL MONITORING**

As indicated in Section 6.0, the groundwater extraction system continues to successfully perform its intended function of isolating and protecting the groundwater outside the barrier wall from the source areas of the Site inside the barrier walls.

However, water levels have risen to above target levels in several of the SBPA and Off-Site ISVE wells. In order to decrease these water levels, MWH began performing liquid removal activities from Off-Site Area wells with high water or free product levels on a weekly basis starting in February 2009. Beginning in March 2009, MWH also began removing liquid from target wells in the SBPA Areas in addition to those in the Off-Site Area. Liquid is removed using a vacuum hose that transfers the water and free product into steel drums stored on a trailer. Approximately 365 gallons of liquid were removed from Off-Site wells

and 30 gallons were removed from SBPA wells during the first quarter of 2009. The drums of liquid are stored at the Site temporarily until they can be shipped off site. In May 2009, MWH shipped nine drums of product off site to be disposed of as hazardous waste.

#### **8.4 HEALTH AND SAFETY**

No health and safety incidents were reported during the first quarter of 2009. MWH continues to perform site activities in accordance with the site Health and Safety Plan and all applicable addendums.

Health and Safety statistics for the ACS Site as of March 31, 2009 are:

- 4,329 consecutive days with no lost time due to an accident or Health and Safety incident.
- 2,021 consecutive days without an incident requiring first aid.

## **9.0 REFERENCES**

1. *Final Remedial Design Report: Final Remedy, ACS NPL Site*, Montgomery Watson, August 1999.
2. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, July 1997.
3. *Performance Standard Verification Plan, ACS NPL Site*, Montgomery Watson, June 1999.
4. *Phase I Technical Memorandum Wetland Investigation, ACS NPL Site*, Montgomery Watson, July 1996.
5. *Phase II Technical Memorandum Wetland Investigation, ACS NPL Site*, Montgomery Watson, February 1997.
6. *Quality Assurance Project Plan, ACS NPL Site*, Montgomery Harza, March 2001.
7. *Quality Assurance Project Plan, Addendum No. 1, ACS NPL Site*, MWH, April 2007.
8. *U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers*, United States Environmental Protection Agency, 1992.
9. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, U.S. EPA, February 1994.
10. *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, U.S. EPA, October 1999.

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## **TABLES**

**Table 2.1**  
**Groundwater Treatment System Effluent Discharge Limits**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Groundwater Quality Parameter	Effluent Standard (Limit)
<b>General Water Quality Parameters</b>	
pH	6 - 9 S.U.
BOD-5	30 mg/L
TSS	30 mg/L
<b>Inorganics</b>	
Arsenic	50 µg/L
Beryllium	NE
Cadmium	4.1 µg/L
Manganese	NE
Mercury <sup>1</sup>	0.02 µg/L (w/DL = 0.64)
Selenium	8.2 µg/L
Thallium	NE
Zinc	411 µg/L
<b>Volatile Organics</b>	
Acetone	6,800 µg/L
Benzene	5 µg/L
2-Butanone	210 µg/L
Chloromethane	NE
1,4 – Dichlorobenzene	NE
1,1 – Dichloroethane	NE
1,2 – Dichloroethene – cis	70 µg/L
Ethylbenzene	34 µg/L
Methylene chloride	5 µg/L
Tetrachloroethene	5 µg/L
Trichloroethene	5 µg/L
Vinyl chloride	2 µg/L
4 – Methyl – 2 – pentanone	15 µg/L
<b>Semi-Volatile Organics</b>	
bis(2 – Chloroethyl) ether	9.6 µg/L
bis(2 – Ethylhexyl) phthalate	6 µg/L
Isophorone	50 µg/L
4 – Methylphenol	34 µg/L
Pentachlorophenol	1 µg/L
<b>PCBs</b>	
PCBs <sup>1</sup>	0.00056 µg/L (w/DL = 0.1 to 0.9)

**Notes:**

1. Effluent standards for the Groundwater Treatment Plant were established based on maximum contaminant levels, Indiana water quality effluent limits, or best available treatment technologies. However, laboratory equipment could not read down to the effluent standards for mercury or PCBs. Therefore, the lowest equipment detection limit (or limit range for PCBs) for these compounds were established as their respective effluent standards.

NE = No effluent limit established.

DL = Detection limit

S.U. = Standard pH units

µg/L = micrograms per Liter

TSS = Total suspended solids

BOD = Biological oxygen demand

**Table 2.2**  
**Summary of Effluent Analytical Results - First Quarter 2009**  
**Groundwater Treatment System**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Event Date	Month 140 1/15/2009	Month 141 2/12/2009	Month 142 3/5/2009	Effluent Limits	Lab Reporting Limits
pH	7.50 H/J	7.03 H/	7.01 H/J	6-9	none
TSS	1.0 U/	NS	NS	30	1.0
BOD	2.0 U/	NS	NS	30	2
Arsenic	10 U/	NS	NS	50	10
Beryllium	1.0 U/	NS	NS	NE	1.0
Cadmium	2.0 U/	NS	NS	4.1	2.0
Manganese	19 /	NS	NS	NE	2.0
Mercury <sup>1</sup>	0.15 Jb/UB	NS	NS	0.02 (w/DL = 0.64)	0.2
Selenium	30 U/	NS	NS	8.2	30
Thallium	50 U/	NS	NS	NE	50
Zinc	20 U/	NS	NS	411	20
Benzene	1.0 U/	1.0 U/	1.0 U/	5	1.0
Acetone	5.0 U/UJ	5.0 U/UJ	5.0 U/UJ	6,800	5.0
2-Butanone	2.0 U/UJ	2.0 U/UJ	2.0 U/UJ	210	2.0
Chloromethane	2.0 U/	2.0 U/UJ	2.0 U/	NE	2.0
1,4-Dichlorobenzene	1.0 U/	1.0 U/	1.0 U/	NE	1.0
1,1-Dichloroethane	1.6 /	2.2 /	2.2 /	NE	1.0
cis-1,2-Dichloroethene	5.0 /	5.6 /	10 U/	70	1.0
Ethylbenzene	1.0 U/	1.0 U/	1.0 U/	34	1.0
Methylene chloride	1.6 J/	0.94 J/	2.0 U/	5	2.0
Tetrachloroethene	1.0 U/	1.0 U/	1.0 U/	5	1.0
Trichloroethene	1.0 U/	1.0 U/	1.0 U/	5	1.0
Vinyl chloride	0.44 J/	0.43 J/	0.45 J/	2	2.0
4-Methyl-2-pentanone	1.0 U/	1.0 U/	1.0 U/	15	1.0
bis (2-Chloroethyl) ether	9.9 U/	NS	NS	9.6	9.9
bis(2-Ethylhexyl) - phthalate	9.9 U/	NS	NS	6	9.9
4 - Methylphenol	9.9 U/	NS	NS	34	9.9
Isophorone	9.9 U/	NS	NS	50	9.9
Pentachlorophenol	50 U/	NS	NS	1	50
PCB/Aroclor-1016 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49
PCB/Aroclor-1221 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49
PCB/Aroclor-1232 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49
PCB/Aroclor-1242 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49
PCB/Aroclor-1248 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49
PCB/Aroclor-1254 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49
PCB/Aroclor-1260 <sup>1</sup>	0.49 U/	NS	NS	0.00056 (w/DL = 0.1 to 0.9)	0.49

**Notes:**

Bolded result indicates a exceedence of the discharge limit  
pH data is expressed in S.U.

BOD and TSS data is expressed in mg/L

Metals, VOC, SVOC and PCB data is expressed in ug/L

1. Effluent standards for the Groundwater Treatment Plant were established based on maximum contaminant levels, Indiana water quality effluent limits, or best available treatment technologies. However, laboratory equipment could not read down to the effluent standards for mercury or PCBs. Therefore, the lowest equipment detection limit (or limit range for PCBs) for these compounds were established as their respective effluent standards.

ND = Not detected

NS = This analyte was not sampled or analyzed for

NE = No effluent limit established.

DL = Detection limit

**Suffix Definitions:**

\_/\_ = Data qualifier added by laboratory

/\_ = Data qualifier added by data validator

J = Result is detected below the reporting limit and is an estimated concentration.

U = Analyte is not detected at or above the indicated concentration.

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value, however the calibration was out of range. Therefore the concentration is estimated.

H = Analyte was prepared and/or analyzed outside of the analytical method holding time.

UB = Compound or analyte is not detected at or above the indicated concentration due to blank contamination.

Jb = Detected in the associated Method Blank at a concentration between the Reporting Limit and Method Detection Limit.

**Table 2.3**  
**Summary of Sediment Analytical Results**  
**Groundwater Treatment System**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

PCB Compound	Results (ug/kg)																	
	12/4/98	2/3/00	2/3/00 DUP	8/21/01	8/21/01 DUP	6/5/02	6/5/02 DUP	1/13/04	1/13/04 DUP	9/27/04	9/27/04 DUP	6/15/05	6/15/05 DUP	12/11/06	12/11/06 DUP	4/13/07	4/13/07 DUP	
Aroclor-1016	ND (33)	ND (59)	ND (79)	ND (62) /UJ	ND (71)	ND (52) /UJ	ND (49)	ND (67)	ND (76)	ND (62)	ND (78)	ND (74)	ND (39)	ND (71)	ND (53)	ND (71)	ND (71)	
Aroclor-1221	ND (33)	ND (77)	ND (100)	ND (82) /UJ	ND (92)	ND (67) /UJ	ND (64)	ND (84)	ND (95)	ND (84)	ND (110)	ND (100)	ND (53)	ND (100)	ND (76)	ND (100)	ND (100)	
Aroclor-1232	ND (33)	ND (59)	ND (79)	ND (62) /UJ	ND (71)	ND (52) /UJ	ND (49)	ND (67)	ND (76)	ND (62)	ND (78)	ND (74)	ND (39)	ND (50)	ND (38)	ND (50)	ND (50)	
Aroclor-1242	ND (33)	ND (41)	ND (55)	ND (43) /UJ	ND (49) /UJ	ND (36) /UJ	ND (34)	ND (42)	ND (48)	ND (42)	ND (53)	ND (50)	ND (27)	ND (50)	ND (38)	ND (50)	ND (50)	
Aroclor-1248	ND (33)	ND (41)	ND (55)	ND (43) /UJ	ND (49) /UJ	ND (36) /UJ	ND (34)	ND (42)	ND (48)	ND (42)	ND (53)	ND (49)	ND (27)	300	450	ND (50)	ND (50)	
Aroclor-1254	ND (33)	22 J/	15 J/	73 P/J	39 JP/J	ND (36) /UJ	ND (34)	ND (42)	ND (48)	ND (42)	ND (53)	ND (54)	ND (27)	ND (50)	ND (38)	64	74	
Aroclor-1260	ND (33)	ND (59)	ND (79)	ND (62) /UJ	ND (71) /UJ	41 J/J	ND (49)	35 J	ND (76)	ND (62)	ND (78)	ND (74)	ND (39)	ND (50)	ND (38)	ND (50)	ND (50)	
<b>Total PCBs<sup>4</sup></b>	<b>ND</b>	<b>22</b>	<b>15</b>	<b>73</b>	<b>39</b>	<b>41</b>	<b>ND</b>	<b>35</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>300</b>	<b>450</b>	<b>64</b>	<b>74</b>

PCB Compound	Results (ug/kg)			
	11/25/08	11/25/08 DUP	3/24/2009	3/24/09 DUP
Aroclor-1016	ND (99)	ND (99)	ND (33)	ND (33)
Aroclor-1221	ND (99)	ND (99)	ND (33)	ND (33)
Aroclor-1232	ND (99)	ND (99)	ND (33)	ND (33)
Aroclor-1242	ND (99)	ND (99)	ND (33)	ND (33)
Aroclor-1248	ND (99)	580	ND (33)	ND (33)
Aroclor-1254	ND (99)	280	57 /NJ	99 /NJ
Aroclor-1260	ND (99)	ND (99)	ND (33)	ND (33)
<b>Total PCBs<sup>4</sup></b>	<b>ND</b>	<b>860</b>	<b>57</b>	<b>99</b>

**Notes:**

1 ND ( ) = Compound was not detected. The detection limit is included in parentheses.

2 December 4, 1998 sample was analyzed by Quanterra. Samples collected between 2000 and 2007 were analyzed by Compuchem.

Samples since 2008 were analyzed by Microbac.

3 DUP = Duplicate sample

4 The total PCB value presented here are estimated totals based on estimated concentrations of individual Aroclors.

**Suffix Definitions:**

/ = Data qualifier added by laboratory

/\_ = Data qualifier added by data validator

J = Result is detected below the reporting limit and is an estimated concentration.

P = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported.

JP = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported. The concentration is also estimated.

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

NJ = Presumptive evidence of presence of the constituent, therefore, the concentration is an estimated value.

**Table 3.1**  
**Thermal Oxidizer 1 Results for Method TO-15 (VOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09						Destruction Efficiency		
		Therm-Ox 1						Low	High	Average
1,1,1-Trichloroethane	ppbv	14,000		14,000		47		99.66%	99.66%	99.66%
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
1,1,2-Trichloroethane	ppbv	18	J	17	J	0.60		NC	NC	NC
1,1-Dichloroethane	ppbv	1,900		1,900		17		99.11%	99.11%	99.11%
1,1-Dichloroethene	ppbv	120		130		24		80.00%	81.54%	80.77%
1,2-Dichloroethane	ppbv	150		150		3.0		98.00%	98.00%	98.00%
1,2-Dichloropropane	ppbv	110		100		ND	U	100.00%	100.00%	100.00%
2-Butanone (Methyl Ethyl Ketone)	ppbv	130		90	J	12		NC	NC	NC
2-Hexanone	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
4-Methyl-2-pentanone	ppbv	70		56		5.8		89.64%	91.71%	90.68%
Acetone	ppbv	400		290		18	/UB	NC	NC	NC
Benzene	ppbv	1,400		1,400		34		97.57%	97.57%	97.57%
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Bromoform	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Bromomethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Chlorobenzene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Chloroethane	ppbv	350		360		4.9		98.60%	98.64%	98.62%
Chloroform	ppbv	2,300		2,200		14		99.36%	99.39%	99.38%
Chloromethane	ppbv	ND	U	ND	U	3.1		NC	NC	NC
cis-1,2-Dichloroethene	ppbv	16,000		18,000		66		99.59%	99.63%	99.61%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Ethyl Benzene	ppbv	1,700		1,700		14		99.18%	99.18%	99.18%
m,p-Xylene	ppbv	7,100		7,000		56		99.20%	99.21%	99.21%
Methylene Chloride	ppbv	4,600		4,700	/B	55	/B	NC	NC	NC
o-Xylene	ppbv	3,500		3,400		24		99.29%	99.31%	99.30%
Styrene	ppbv	17	J	22	J	12		NC	NC	NC
Tetrachloroethene	ppbv	14,000		14,000		87		99.38%	99.38%	99.38%
Toluene	ppbv	15,000		12,000		92		99.23%	99.39%	99.31%
trans-1,2-Dichloroethene	ppbv	90		91		17		81.11%	81.32%	81.21%
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Trichloroethene	ppbv	5,700		5,600		55		99.02%	99.04%	99.03%
Vinyl Chloride	ppbv	2,800		2,900		30		98.93%	98.97%	98.95%
<b>Total</b>	<b>ppbv</b>	<b>91,455</b>		<b>90,106</b>		<b>691.4</b>		<b>99.23%</b>	<b>99.24%</b>	<b>99.24%</b>
<b>Total</b>	<b>lb/hr</b>	<b>1.343</b>		<b>1.327</b>		<b>0.010</b>		<b>99.25%</b>	<b>99.26%</b>	<b>99.25%</b>

**Notes:**

NC - Not calculated  
 ppbv - Parts per billion volume  
 lb/hr - Pounds per hour

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 B - Compound or analyte was positively detected in sample and in associated blank  
 UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.  
 / - Laboratory data qualifier  
 /\_ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 1	01/29/09	75	814

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.2**  
**Thermal Oxidizer 1 Results for Method TO-15 (VOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09						Destruction Efficiency		
		Therm-Ox 1						Low	High	Average
Influent	Influent Dup	Effluent								
1,1,1-Trichloroethane	ppbv	10,000		11,000		270		97.30%	97.55%	97.42%
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
1,1,2-Trichloroethane	ppbv	18	J	15	J	1.8		NC	NC	NC
1,1-Dichloroethane	ppbv	1,400		1,400		49		96.50%	96.50%	96.50%
1,1-Dichloroethene	ppbv	58		58		75		NC	NC	NC
1,2-Dichloroethane	ppbv	120		120		5.0		95.83%	95.83%	95.83%
1,2-Dichloropropane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	340		170		79		53.53%	76.76%	65.15%
2-Hexanone	ppbv	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
4-Methyl-2-pentanone	ppbv	500		410		15		96.34%	97.00%	96.67%
Acetone	ppbv	440		290		130		55.17%	70.45%	62.81%
Benzene	ppbv	1,100		990		170		82.83%	84.55%	83.69%
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Bromoform	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Bromomethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	0.29	J	NC	NC	NC
Chlorobenzene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Chloroethane	ppbv	120		120		1.3		98.92%	98.92%	98.92%
Chloroform	ppbv	1,900		1,900		35		98.16%	98.16%	98.16%
Chloromethane	ppbv	ND	U	ND	U	3.1		NC	NC	NC
cis-1,2-Dichloroethene	ppbv	13,000		14,000		44		99.66%	99.69%	99.67%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Ethyl Benzene	ppbv	2,200		2,200		54		97.55%	97.55%	97.55%
m,p-Xylene	ppbv	9,300		9,400		190		97.96%	97.98%	97.97%
Methylene Chloride	ppbv	3,300	/B	3,200	/B	260	/B	NC	NC	NC
o-Xylene	ppbv	4,600		4,800		76		98.35%	98.42%	98.38%
Styrene	ppbv	49		42		14		66.67%	71.43%	69.05%
Tetrachloroethene	ppbv	11,000		13,000		250		97.73%	98.08%	97.90%
Toluene	ppbv	12,000	/J	14,000	/J	680	/J	NC	NC	NC
trans-1,2-Dichloroethene	ppbv	52		54		5		89.62%	90.00%	89.81%
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Trichloroethene	ppbv	4,000		4,000		180		95.50%	95.50%	95.50%
Vinyl Chloride	ppbv	550		560		0.53		99.90%	99.91%	99.90%
<b>Total</b>	<b>ppbv</b>	<b>76,047</b>		<b>81,729</b>		<b>2,588.4</b>		<b>96.60%</b>	<b>96.83%</b>	<b>96.71%</b>
<b>Total</b>	<b>lb/hr</b>	<b>1.051</b>		<b>1.140</b>		<b>0.033</b>		<b>96.86%</b>	<b>97.11%</b>	<b>96.98%</b>

**Notes:**

NC - Not calculated  
 ppbv - Parts per billion volume  
 lb/hr - Pounds per hour

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 B - Compound or analyte was positively detected in sample and in associated blank  
 UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

/ - Laboratory data qualifier

/ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 1	02/12/09	87	767

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.3**  
**Thermal Oxidizer 1 Results for Method TO-15 (VOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09						Destruction Efficiency		
		Therm-Ox 1			Effluent			Low	High	Average
1,1,1-Trichloroethane	ppbv	5,900		6,000		59		99.00%	99.02%	99.01%
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
1,1,2-Trichloroethane	ppbv	ND	U	ND	U	0.46	J	NC	NC	NC
1,1-Dichloroethane	ppbv	1,100		1,100		12		98.91%	98.91%	98.91%
1,1-Dichloroethene	ppbv	47		44		43		2.27%	8.51%	5.39%
1,2-Dichloroethane	ppbv	110		120		2.0		98.18%	98.33%	98.26%
1,2-Dichloropropane	ppbv	66		65		ND	U	100.00%	100.00%	100.00%
2-Butanone (Methyl Ethyl Ketone)	ppbv	130		300		19		85.38%	93.67%	89.53%
2-Hexanone	ppbv	ND	U	ND	U	0.53	J	NC	NC	NC
4-Methyl-2-pentanone	ppbv	240	/J	350		10		NC	NC	NC
Acetone	ppbv	220		410		27		87.73%	93.41%	90.57%
Benzene	ppbv	860		1,000		33		96.16%	96.70%	96.43%
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Bromoform	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Bromomethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Chlorobenzene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Chloroethane	ppbv	150		160		0.66		99.56%	99.59%	99.57%
Chloroform	ppbv	1,400		1,300		12		99.08%	99.14%	99.11%
Chloromethane	ppbv	ND	U	ND	U	1.2	J	NC	NC	NC
cis-1,2-Dichloroethene	ppbv	4,600		4,500		29		99.36%	99.37%	99.36%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Ethyl Benzene	ppbv	1,500		1,500		17		98.87%	98.87%	98.87%
m,p-Xylene	ppbv	6,100		6,200		80		98.69%	98.71%	98.70%
Methylene Chloride	ppbv	2,300		2,600		54		97.65%	97.92%	97.79%
o-Xylene	ppbv	3,000		2,900		32		98.90%	98.93%	98.91%
Styrene	ppbv	24	J	30		5.7		NC	NC	NC
Tetrachloroethene	ppbv	5,700		5,500		73		98.67%	98.72%	98.70%
Toluene	ppbv	5,900	/J	7,000	/J	120	/J	NC	NC	NC
trans-1,2-Dichloroethene	ppbv	33		31		7.7		75.16%	76.67%	75.91%
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC	NC	NC
Trichloroethene	ppbv	3,500		3,500		50		98.57%	98.57%	98.57%
Vinyl Chloride	ppbv	400		370		0.50		99.86%	99.88%	99.87%
<b>Total</b>	<b>ppbv</b>	<b>43,280</b>		<b>44,980</b>		<b>688.8</b>		<b>98.41%</b>	<b>98.47%</b>	<b>98.44%</b>
<b>Total</b>	<b>lb/hr</b>	<b>0.644</b>		<b>0.661</b>		<b>0.010</b>		<b>98.45%</b>	<b>98.49%</b>	<b>98.47%</b>

**Notes:**

NC - Not calculated  
 ppbv - Parts per billion volume  
 lb/hr - Pounds per hour

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 / - Laboratory data qualifier  
 /\_ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 1	03/10/09	75	822

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.4**  
**Thermal Oxidizer 2 Results for Method TO-15 (VOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09						
		Therm-Ox 2				Destruction Efficiency		
		Influent	Influent Dup	Effluent		Low	High	Average
1,1,1-Trichloroethane	ppbv	10,000		12,000		150		98.50% 98.75% 98.63%
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
1,1,2-Trichloroethane	ppbv	47		53		4.6		90.21% 91.32% 90.77%
1,1-Dichloroethane	ppbv	1,400		1,700		50		96.43% 97.06% 96.74%
1,1-Dichloroethene	ppbv	38		52		830		NC NC NC
1,2-Dichloroethane	ppbv	190		230		16		91.58% 93.04% 92.31%
1,2-Dichloropropane	ppbv	ND	U	ND	U	1.9		NC NC NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	1,100		1,600		41		96.27% 97.44% 96.86%
2-Hexanone	ppbv	ND	U	ND	U	ND	U	NC NC NC
4-Methyl-2-pentanone	ppbv	250		310		28		88.80% 90.97% 89.88%
Acetone	ppbv	1,800	/UB	2,100	/UB	71	/B	NC NC NC
Benzene	ppbv	3,100		3,600		550		82.26% 84.72% 83.49%
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Bromoform	ppbv	ND	U	ND	U	ND	U	NC NC NC
Bromomethane	ppbv	ND	U	ND	U	0.81		NC NC NC
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U	NC NC NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	ND	U	NC NC NC
Chlorobenzene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Chloroethane	ppbv	420		550		20		95.24% 96.36% 95.80%
Chloroform	ppbv	710		870		32		95.49% 96.32% 95.91%
Chloromethane	ppbv	ND	U	ND	U	23		NC NC NC
cis-1,2-Dichloroethene	ppbv	1,200		1,800		97		91.92% 94.61% 93.26%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Ethyl Benzene	ppbv	2,300		2,700		130		94.35% 95.19% 94.77%
m,p-Xylene	ppbv	9,700		11,000		500		94.85% 95.45% 95.15%
Methylene Chloride	ppbv	10,000	/B	13,000	/B	790	/B	NC NC NC
o-Xylene	ppbv	3,800		4,600		190		95.00% 95.87% 95.43%
Styrene	ppbv	77		68		100		NC NC NC
Tetrachloroethene	ppbv	4,000		4,700		540		86.50% 88.51% 87.51%
Toluene	ppbv	27,000		31,000		1,200		95.56% 96.13% 95.84%
trans-1,2-Dichloroethene	ppbv	ND	U	26	J	25		NC NC NC
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Trichloroethene	ppbv	3,800		4,500		400		89.47% 91.11% 90.29%
Vinyl Chloride	ppbv	370		550		190		48.65% 65.45% 57.05%
<b>Total</b>	<b>ppbv</b>	<b>81,302</b>		<b>97,009</b>		<b>5,980.3</b>		<b>92.64% 93.84% 93.24%</b>
<b>Total</b>	<b>lb/hr</b>	<b>2.460</b>		<b>2.928</b>		<b>0.178</b>		<b>92.76% 93.92% 93.34%</b>

**Notes:**

NC - Not calculated

ppbv - parts per billion volume

lb/hr - pounds per hour

**Qualifiers:**

U - Below reported quantitation limit

J - Result is estimated

/ - Laboratory data qualifier

/ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 2	01/29/09	49	1,854

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.5**  
**Thermal Oxidizer 2 Results for Method TO-15 (VOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09						
		Therm-Ox 2				Destruction Efficiency		
		Influent	Influent Dup	Effluent		Low	High	Average
1,1,1-Trichloroethane	ppbv	16,000		15,000		35	/J	NC NC NC
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
1,1,2-Trichloroethane	ppbv	75		71		0.38	J	NC NC NC
1,1-Dichloroethane	ppbv	1,900		1,900		13		99.32% 99.32% 99.32%
1,1-Dichloroethene	ppbv	53		51		50		1.96% 5.66% 3.81%
1,2-Dichloroethane	ppbv	260		260		1.8		99.31% 99.31% 99.31%
1,2-Dichloropropane	ppbv	ND	U	ND	U	ND	U	NC NC NC
2-Butanone (Methyl Ethyl Ketone)	ppbv	3,800		3,700		12	/J	NC NC NC
2-Hexanone	ppbv	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
4-Methyl-2-pentanone	ppbv	1,800		1,800		11		99.39% 99.39% 99.39%
Acetone	ppbv	3,600		3,600		16	/J	NC NC NC
Benzene	ppbv	3,900		3,800		33		99.13% 99.15% 99.14%
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Bromoform	ppbv	ND	U	ND	U	ND	U	NC NC NC
Bromomethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U	NC NC NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	ND	U	NC NC NC
Chlorobenzene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Chloroethane	ppbv	100		94		1.7	/J	NC NC NC
Chloroform	ppbv	1,100		1,000		12		98.80% 98.91% 98.85%
Chloromethane	ppbv	ND	U	ND	U	1.2	J	NC NC NC
cis-1,2-Dichloroethene	ppbv	1,800		1,700		50		97.06% 97.22% 97.14%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Ethyl Benzene	ppbv	3,500		3,500		20		99.43% 99.43% 99.43%
m,p-Xylene	ppbv	22,000		21,000		43		99.80% 99.80% 99.80%
Methylene Chloride	ppbv	14,000	/B	14,000	/B	39	/B	NC NC NC
o-Xylene	ppbv	5,800		5,800		18		99.69% 99.69% 99.69%
Styrene	ppbv	160		130		8.4		93.54% 94.75% 94.14%
Tetrachloroethene	ppbv	5,800		5,800		78		98.66% 98.66% 98.66%
Toluene	ppbv	40,000	/J	38,000	/J	86	/J	NC NC NC
trans-1,2-Dichloroethene	ppbv	20	J	ND	U	12		NC NC NC
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Trichloroethene	ppbv	5,500		5,400		40		99.26% 99.27% 99.27%
Vinyl Chloride	ppbv	240		220		13		94.09% 94.58% 94.34%
<b>Total</b>	<b>ppbv</b>	<b>131,408</b>		<b>126,826</b>		<b>594.5</b>		<b>99.53% 99.55% 99.54%</b>
<b>Total</b>	<b>lb/hr</b>	<b>3.775</b>		<b>3.641</b>		<b>0.018</b>		<b>99.51% 99.52% 99.51%</b>

**Notes:**

NC - Not calculated  
 ppbv - parts per billion volume  
 lb/hr - pounds per hour

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 B - Compound or analyte was positively detected in sample and in associated blank  
 UJ - Indicates the compound or analyte was analyzed for but not detected.  
 The sample detection limit is an estimated value.  
 / - Laboratory data qualifier  
 /\_ - Data validation qualifier

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 2	02/12/09	54	1,760

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.6**  
**Thermal Oxidizer 2 Results for Method TO-15 (VOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09						
		Therm-Ox 2				Destruction Efficiency		
		Influent	Influent Dup	Effluent		Low	High	Average
1,1,1-Trichloroethane	ppbv	7,100		7,200		200		97.18% 97.22% 97.20%
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
1,1,2-Trichloroethane	ppbv	74		73		2.2		96.99% 97.03% 97.01%
1,1-Dichloroethane	ppbv	1,700		1,700		49		97.12% 97.12% 97.12%
1,1-Dichloroethene	ppbv	50		49		73		NC NC NC
1,2-Dichloroethane	ppbv	290		280		7.6		97.29% 97.38% 97.33%
1,2-Dichloropropane	ppbv	79		78		1.9		97.56% 97.59% 97.58%
2-Butanone (Methyl Ethyl Ketone)	ppbv	3,400		3,300		65		98.03% 98.09% 98.06%
2-Hexanone	ppbv	ND	U	ND	U	1.2	J	NC NC NC
4-Methyl-2-pentanone	ppbv	1,700		1,700		25		98.53% 98.53% 98.53%
Acetone	ppbv	3,600		3,200		52	/J	NC NC NC
Benzene	ppbv	3,700		3,700		130		96.49% 96.49% 96.49%
Bromodichloromethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Bromoform	ppbv	ND	U	ND	U	ND	U	NC NC NC
Bromomethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Carbon Disulfide	ppbv	ND	U	ND	U	ND	U	NC NC NC
Carbon Tetrachloride	ppbv	ND	U	ND	U	0.39	J	NC NC NC
Chlorobenzene	ppbv	ND	U	ND	U	2.2		NC NC NC
Chloroethane	ppbv	140		130		2.0		98.46% 98.57% 98.52%
Chloroform	ppbv	1,400		1,400		44		96.86% 96.86% 96.86%
Chloromethane	ppbv	ND	U	ND	U	3.8		NC NC NC
cis-1,2-Dichloroethene	ppbv	1,900		1,800		55		96.94% 97.11% 97.02%
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Dibromochloromethane	ppbv	ND	U	ND	U	ND	U	NC NC NC
Ethyl Benzene	ppbv	3,300		3,200		63		98.03% 98.09% 98.06%
m,p-Xylene	ppbv	11,000		10,000		190		98.10% 98.27% 98.19%
Methylene Chloride	ppbv	6,200		6,300		190		96.94% 96.98% 96.96%
o-Xylene	ppbv	5,400		5,100		91		98.22% 98.31% 98.27%
Styrene	ppbv	140		140		33		76.43% 76.43% 76.43%
Tetrachloroethene	ppbv	5,500		5,500		150		97.27% 97.27% 97.27%
Toluene	ppbv	20,000	/J	19,000	/J	400		NC NC NC
trans-1,2-Dichloroethene	ppbv	22	J	21	J	7.3		NC NC NC
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U	ND	U	NC NC NC
Trichloroethene	ppbv	5,200		5,200		130		97.50% 97.50% 97.50%
Vinyl Chloride	ppbv	190		170		18		89.41% 90.53% 89.97%
<b>Total</b>	<b>ppbv</b>	<b>82,085</b>		<b>79,241</b>		<b>1,986.6</b>		<b>97.49% 97.58% 97.54%</b>
<b>Total</b>	<b>lb/hr</b>	<b>2.175</b>		<b>2.108</b>		<b>0.053</b>		<b>97.49% 97.56% 97.52%</b>

**Notes:**

NC - Not calculated  
 ppbv - parts per billion volume  
 lb/hr - pounds per hour

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

U - Below reported quantitation limit  
 J - Result is estimated  
 /J - Laboratory data qualifier  
 /\_ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
Therm-Ox 2	03/10/09	56	1,613

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.7**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-15 (VOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

<b>Compounds</b>	<b>Units</b>	<b>01/29/09</b>			
		<b>SBPA ISVE</b>		<b>Off-Site ISVE</b>	
1,1,1-Trichloroethane	ppbv	15,000		16,000	
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U
1,1,2-Trichloroethane	ppbv	16	J	70	
1,1-Dichloroethane	ppbv	1,800		1,900	
1,1-Dichloroethene	ppbv	110		56	
1,2-Dichloroethane	ppbv	120		280	
1,2-Dichloropropane	ppbv	100		ND	U
2-Butanone (Methyl Ethyl Ketone)	ppbv	35	J	1,800	
2-Hexanone	ppbv	ND	U	ND	U
4-Methyl-2-pentanone	ppbv	ND	U	610	
Acetone	ppbv	180		2,300	/UB
Benzene	ppbv	1,400		3,600	
Bromodichloromethane	ppbv	ND	U	ND	U
Bromoform	ppbv	ND	U	ND	U
Bromomethane	ppbv	ND	U	ND	U
Carbon Disulfide	ppbv	ND	U	ND	U
Carbon Tetrachloride	ppbv	ND	U	ND	U
Chlorobenzene	ppbv	ND	U	ND	U
Chloroethane	ppbv	370	/J	130	
Chloroform	ppbv	2,100		930	
Chloromethane	ppbv	ND	U	ND	U
cis-1,2-Dichloroethene	ppbv	19,000		2,900	
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U
Dibromochloromethane	ppbv	ND	U	ND	U
Ethyl Benzene	ppbv	1,500		2,900	
m,p-Xylene	ppbv	6,200		22,000	
Methylene Chloride	ppbv	4,800	/B	16,000	/UB
o-Xylene	ppbv	2,900		4,800	
Styrene	ppbv	ND	U	130	
Tetrachloroethene	ppbv	15,000		5,700	
Toluene	ppbv	12,000		39,000	
trans-1,2-Dichloroethene	ppbv	80		20	J
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U
Trichloroethene	ppbv	5,600		5,300	
Vinyl Chloride	ppbv	2,800		330	
<b>Total</b>	<b>ppbv</b>	<b>91,111</b>		<b>126,756</b>	
<b>Total</b>	<b>lb/hr</b>	<b>1.513</b>		<b>3.857</b>	

**Notes:**

NC - Not calculated  
 ppbv - parts per billion volume  
 lb/hr - pounds per hour

**Qualifiers:**

J - Result is estimated  
 U - Below reported quantitation limit  
 B - Compound or analyte was positively detected in sample and in associated blank.  
 UB - Compound or analyte is not detected at or above the indicated concentration due to blank contamination.  
 / - Laboratory data qualifier  
 /\_ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
On-site	01/29/09	76	911
Off-site	01/29/09	49*	1854*

Temperatures and flow rates reported correspond to instantaneous readings.

\*Values were taken from Flow meter 504 for ThermOx 2

**Table 3.8**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-15 (VOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

<b>Compounds</b>	<b>Units</b>	<b>02/12/09</b>			
		<b>SBPA ISVE</b>		<b>Off-Site ISVE</b>	
1,1,1-Trichloroethane	ppbv	11,000		15,000	
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U
1,1,2-Trichloroethane	ppbv	ND	U	74	
1,1-Dichloroethane	ppbv	1,400		2,000	
1,1-Dichloroethene	ppbv	57		60	
1,2-Dichloroethane	ppbv	120		270	
1,2-Dichloropropane	ppbv	84		82	
2-Butanone (Methyl Ethyl Ketone)	ppbv	170		4,100	
2-Hexanone	ppbv	ND	U/UJ	ND	U/UJ
4-Methyl-2-pentanone	ppbv	420		1,900	
Acetone	ppbv	280		3,900	
Benzene	ppbv	1,000		4,200	
Bromodichloromethane	ppbv	ND	U	ND	U
Bromoform	ppbv	ND	U	ND	U
Bromomethane	ppbv	ND	U	ND	U
Carbon Disulfide	ppbv	ND	U	ND	U
Carbon Tetrachloride	ppbv	ND	U	ND	U
Chlorobenzene	ppbv	ND	U	ND	U
Chloroethane	ppbv	130		97	
Chloroform	ppbv	1,900		1,100	
Chloromethane	ppbv	ND	U	ND	U
cis-1,2-Dichloroethene	ppbv	14,000		2,000	
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U
Dibromochloromethane	ppbv	ND	U	ND	U
Ethyl Benzene	ppbv	2,400		3,600	
m,p-Xylene	ppbv	10,000		21,000	
Methylene Chloride	ppbv	3,100	/B	13,000	/B
o-Xylene	ppbv	5,200		5,900	
Styrene	ppbv	46		150	
Tetrachloroethene	ppbv	13,000		8,400	
Toluene	ppbv	14,000	/J	36,000	/J
trans-1,2-Dichloroethene	ppbv	53		24	J
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U
Trichloroethene	ppbv	4,000		5,900	
Vinyl Chloride	ppbv	550		270	
<b>Total</b>	<b>ppbv</b>	<b>82,910</b>		<b>129,027</b>	
<b>Total</b>	<b>lb/hr</b>	<b>1.306</b>		<b>3.754</b>	

**Notes:**

NC - Not calculated  
 ppbv - parts per billion volume  
 lb/hr - pounds per hour

**Qualifiers:**

J - Result is estimated  
 U - Below reported quantitation limit  
 B - Compound or analyte was positively detected in sample and in associated blank.  
 UJ - Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.  
 / - Laboratory data qualifier  
 /\_ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
On-site	02/12/09	87	867
Off-site	02/12/09	54*	1760*

Temperatures and flow rates reported correspond to instantaneous readings.

\*Values were taken from Flow meter 504 for ThermOx 2

**Table 3.9**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-15 (VOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09			
		SBPA ISVE		Off-Site ISVE	
1,1,1-Trichloroethane	ppbv	5,800		8,900	
1,1,2,2-Tetrachloroethane	ppbv	ND	U	ND	U
1,1,2-Trichloroethane	ppbv	ND	U	82	
1,1-Dichloroethane	ppbv	1,000		1,700	
1,1-Dichloroethene	ppbv	45		56	
1,2-Dichloroethane	ppbv	110		300	
1,2-Dichloropropane	ppbv	65		81	
2-Butanone (Methyl Ethyl Ketone)	ppbv	130		3,900	
2-Hexanone	ppbv	43	J	ND	U
4-Methyl-2-pentanone	ppbv	270		2,000	
Acetone	ppbv	210		3,900	
Benzene	ppbv	870		3,900	
Bromodichloromethane	ppbv	ND	U	23	J
Bromoform	ppbv	ND	U	ND	U
Bromomethane	ppbv	ND	U	ND	U
Carbon Disulfide	ppbv	ND	U	ND	U
Carbon Tetrachloride	ppbv	ND	U	ND	U
Chlorobenzene	ppbv	71		ND	U
Chloroethane	ppbv	140		89	
Chloroform	ppbv	1,400		1,500	
Chloromethane	ppbv	ND	U	18	J
cis-1,2-Dichloroethene	ppbv	4,700		1,300	
cis-1,3-Dichloropropene	ppbv	ND	U	ND	U
Dibromochloromethane	ppbv	ND	U	ND	U
Ethyl Benzene	ppbv	1,600		3,500	
m,p-Xylene	ppbv	6,400		14,000	
Methylene Chloride	ppbv	2,300		7,600	
o-Xylene	ppbv	3,200		5,700	
Styrene	ppbv	26		140	
Tetrachloroethene	ppbv	5,700		5,900	
Toluene	ppbv	5,100	/J	21,000	/J
trans-1,2-Dichloroethene	ppbv	32		22	J
trans-1,3-Dichloropropene	ppbv	ND	U	ND	U
Trichloroethene	ppbv	3,500		5,600	
Vinyl Chloride	ppbv	370		170	
<b>Total</b>	<b>ppbv</b>	<b>43,082</b>		<b>91,381</b>	
<b>Total</b>	<b>lb/hr</b>	<b>0.751</b>		<b>2.324</b>	

**Notes:**

NC - Not calculated

ppbv - parts per billion volume

lb/hr - pounds per hour

**Qualifiers:**

J - Result is estimated

U - Below reported quantitation limit

/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

System	Date	Temp (F)	Flow (scfm)
On-site	03/10/09	75	960
Off-site	03/10/09	53	1,543

Temperatures and flow rates reported correspond to instantaneous readings.

**Table 3.10**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09						Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low	High	Average
		ND	U	ND	U	ND	U	NC	NC	NC
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,4-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylnaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	ND	U	NC	NC	NC
3/4-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[a]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[a]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[b]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[g,h,i]perylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[k]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	4.9	J	2.3	J	11		NC	NC	NC
Butyl benzyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Carbazole	µg	ND	U	ND	U	ND	U	NC	NC	NC
Chrysene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenzofuran	µg	ND	U	ND	U	ND	U	NC	NC	NC
Diethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dimethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluorene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachloroethane	µg	ND	U	ND	U	ND	U	NC	NC	NC

**Table 3.10**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09								
		Therm-Ox 1				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Isophorone	µg	ND	U	ND	U	ND	U	NC	NC	NC
Naphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Nitrobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phanthrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
<b>Total</b>	<b>µg</b>	<b>4.90</b>		<b>2.30</b>		<b>11.00</b>		<b>NC</b>	<b>NC</b>	<b>NC</b>

**Notes:**

µg - Microgram

NC - Not calculated

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

\_/\_ - Laboratory data qualifier

/\\_ - Data validation qualifier

**Table 3.11**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09						
		Therm-Ox 1				Destruction Efficiency		
		Influent	Influent Dup	Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	ND	U	NC NC NC
1,2-Dichlorobenzene	µg	0.82	J	ND	U	ND	U	NC NC NC
1,3-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC NC NC
1,4-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC NC NC
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC NC NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC NC NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	U	NC NC NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	U	NC NC NC
2,4-Dinitrophenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC NC NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC NC NC
2-Chloronaphthalene	µg	ND	U	ND	U	ND	U	NC NC NC
2-Chlorophenol	µg	ND	U	ND	U	ND	U	NC NC NC
2-Methylnaphthalene	µg	ND	U	ND	U	ND	U	NC NC NC
2-Methylphenol	µg	ND	U	ND	U	ND	U	NC NC NC
2-Nitroaniline	µg	ND	U	ND	U	ND	U	NC NC NC
2-Nitrophenol	µg	ND	U	ND	U	ND	U	NC NC NC
3,3,-Dichlorobenzidine	µg	ND	U	ND	U	ND	U	NC NC NC
3/4-Methylphenol	µg	ND	U	ND	U	ND	U	NC NC NC
3-Nitroaniline	µg	ND	U	ND	U	ND	U	NC NC NC
4,6-Dinitro-2-methylphenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
4-Bromophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC NC NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	U	NC NC NC
4-Chloroaniline	µg	ND	U	ND	U	ND	U	NC NC NC
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC NC NC
4-Nitroaniline	µg	ND	U	ND	U	ND	U	NC NC NC
4-Nitrophenol	µg	ND	U	ND	U	ND	U	NC NC NC
Acenaphthene	µg	ND	U	ND	U	ND	U	NC NC NC
Acenaphthylene	µg	ND	U	ND	U	ND	U	NC NC NC
Anthracene	µg	ND	U	ND	U	ND	U	NC NC NC
Benzo[a]anthracene	µg	ND	U	ND	U	ND	U	NC NC NC
Benzo[a]pyrene	µg	ND	U	ND	U	ND	U	NC NC NC
Benzo[b]fluoranthene	µg	ND	U	ND	U	ND	U	NC NC NC
Benzo[g,h,i]perylene	µg	ND	U	ND	U	ND	U	NC NC NC
Benzo[k]fluoranthene	µg	ND	U	ND	U	ND	U	NC NC NC
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U	ND	U	NC NC NC
Bis(2-chloroethyl)ether	µg	ND	U	ND	U	ND	U	NC NC NC
Bis(2-chloroisopropyl)ether	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC NC NC
Bis(2-ethylhexyl)phthalate	µg	4.6	J	2.1	J	2.5	J	NC NC NC
Butyl benzyl phthalate	µg	ND	U	ND	U	ND	U	NC NC NC
Carbazole	µg	ND	U	ND	U	ND	U	NC NC NC
Chrysene	µg	ND	U	ND	U	ND	U	NC NC NC
Dibenz[a,h]anthracene	µg	ND	U	ND	U	ND	U	NC NC NC
Dibenzofuran	µg	ND	U	ND	U	ND	U	NC NC NC
Diethyl phthalate	µg	ND	U	ND	U	ND	U	NC NC NC
Dimethyl phthalate	µg	ND	U	ND	U	ND	U	NC NC NC
Di-n-butyl phthalate	µg	ND	U	ND	U	ND	U	NC NC NC
Di-n-octyl phthalate	µg	ND	U	ND	U	ND	U	NC NC NC
Fluoranthene	µg	ND	U	ND	U	ND	U	NC NC NC
Fluorene	µg	ND	U	ND	U	ND	U	NC NC NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	U	NC NC NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	U	NC NC NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	U	NC NC NC
Hexachloroethane	µg	ND	U	ND	U	ND	U	NC NC NC

**Table 3.11**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09								
		Therm-Ox 1				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Isophorone	µg	ND	U	ND	U	ND	U	NC	NC	NC
Naphthalene	µg	0.67	J	0.31	J	ND	U	NC	NC	NC
Nitrobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenanthrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
<b>Total</b>	µg	<b>6.09</b>		<b>2.41</b>		<b>2.50</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

\_/ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.12**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09						Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low	High	Average
		ND	U	ND	U	ND	U	NC	NC	NC
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,4-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylnaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	ND	U	NC	NC	NC
3/4-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[a]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[a]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[b]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benz[g,h,i]perylene	µg	ND	U	1.6		ND	U	NC	NC	NC
Benz[k]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	1.6	J	2.2	J	ND	U	NC	NC	NC
Butyl benzyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Carbazole	µg	ND	U	ND	U	ND	U	NC	NC	NC
Chrysene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenzofuran	µg	ND	U	ND	U	ND	U	NC	NC	NC
Diethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dimethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluorene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachloroethane	µg	ND	U	ND	U	ND	U	NC	NC	NC

**Table 3.12**  
**Thermal Oxidizer 1 Results for Method TO-13 (SVOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09								
		Therm-Ox 1				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U	1.3		ND	U	NC	NC	NC
Isophorone	µg	ND	U	ND	U	ND	U	NC	NC	NC
Naphthalene	µg	ND	U	0.75	J	ND	U	NC	NC	NC
Nitrobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phanthrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
<b>Total</b>	µg	<b>1.60</b>		<b>5.85</b>		<b>0.00</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.13**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09								
		Therm-Ox 2				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	1.2	J	ND	U	ND	U	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,4-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylnaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	ND	U	NC	NC	NC
3/4-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[a]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[a]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[b]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[g,h,i]perylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[k]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	9.6	J	11		8.1	J	NC	NC	NC
Butyl benzyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Carbazole	µg	ND	U	ND	U	ND	U	NC	NC	NC
Chrysene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenzofuran	µg	ND	U	ND	U	ND	U	NC	NC	NC
Diethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dimethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluorene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachloroethane	µg	ND	U	ND	U	ND	U	NC	NC	NC

**Table 3.13**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09								
		Therm-Ox 2				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Isophorone	µg	ND	U	ND	U	ND	U	NC	NC	NC
Naphthalene	µg	2.3		0.79	J	ND	U	NC	NC	NC
Nitrobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenanthrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
<b>Total</b>	<b>µg</b>	<b>13.10</b>		<b>11.79</b>		<b>8.10</b>		<b>31.30%</b>	<b>38.17%</b>	<b>34.73%</b>

**Notes:**

µg - Microgram

NC - Not calculated

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

\_ / - Laboratory data qualifier

/ \_ - Data validation qualifier

**Table 3.14**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09								
		Therm-Ox 2						Destruction Efficiency		
		Influent		Influent Dup		Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	2	J	2.6	J	ND	U	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,4-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylnaphthalene	µg	0.94	J	1.5	J	ND	U	NC	NC	NC
2-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	ND	U	NC	NC	NC
3/4-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[a]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[a]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[b]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[g,h,i]perylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[k]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U/UJ	ND	U/UJ	ND	U/UJ	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	1.6	J	2.2	J	3.6	J	NC	NC	NC
Butyl benzyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Carbazole	µg	ND	U	ND	U	ND	U	NC	NC	NC
Chrysene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenzofuran	µg	ND	U	ND	U	ND	U	NC	NC	NC
Diethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dimethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluorene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachloroethane	µg	ND	U	ND	U	ND	U	NC	NC	NC

**Table 3.14**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09							
		Therm-Ox 2				Destruction Efficiency			
Influent	Influent Dup	Effluent		Low	High	Average			
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U	ND	U	NC	NC
Isophorone	µg	1.3	J	2.0	J	ND	U	NC	NC
Naphthalene	µg	5		7.7		ND	U	100.00%	100.00%
Nitrobenzene	µg	ND	U	ND	U	ND	U	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U	ND	U	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	U	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	ND	U	NC	NC
Phanthrene	µg	ND	U	ND	U	ND	U	NC	NC
Phenol	µg	ND	U	ND	U	ND	U	NC	NC
Pyrene	µg	ND	U	ND	U	ND	U	NC	NC
<b>Total</b>	<b>µg</b>	<b>10.84</b>		<b>16.00</b>		<b>3.60</b>		<b>66.79%</b>	<b>77.50%</b>
									<b>72.14%</b>

**Notes:**

µg - Microgram

NC - Not calculated

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.15**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09								
		Therm-Ox 2				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
1,2,4-Trichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,2-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,3-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
1,4-Dichlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,5-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4,6-Trichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dichlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dimethylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,4-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2,6-Dinitrotoluene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chloronaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Chlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylnaphthalene	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
2-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3,3'-Dichlorobenzidine	µg	ND	U	ND	U	ND	U	NC	NC	NC
3/4-Methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
3-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Bromophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloro-3-methylphenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chloroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitroaniline	µg	ND	U	ND	U	ND	U	NC	NC	NC
4-Nitrophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Acenaphthylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[a]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[a]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[b]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[g,h,i]perylene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Benzo[k]fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroethyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-chloroisopropyl)ether	µg	ND	U	ND	U	ND	U	NC	NC	NC
Bis(2-ethylhexyl)phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Butyl benzyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Carbazole	µg	ND	U	ND	U	ND	U	NC	NC	NC
Chrysene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenz[a,h]anthracene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dibenzofuran	µg	ND	U	ND	U	ND	U	NC	NC	NC
Diethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Dimethyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-butyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Di-n-octyl phthalate	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluoranthene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Fluorene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorobutadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachlorocyclopentadiene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Hexachloroethane	µg	ND	U	ND	U	ND	U	NC	NC	NC

**Table 3.15**  
**Thermal Oxidizer 2 Results for Method TO-13 (SVOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09								
		Therm-Ox 2				Destruction Efficiency				
		Influent		Influent Dup		Effluent		Low	High	Average
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Isophorone	µg	ND	U	ND	U	ND	U	NC	NC	NC
Naphthalene	µg	1.1		ND	U	1.8		NC	NC	NC
Nitrobenzene	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
N-Nitrosodiphenylamine	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pentachlorophenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phanthrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
Phenol	µg	ND	U	ND	U	ND	U	NC	NC	NC
Pyrene	µg	ND	U	ND	U	ND	U	NC	NC	NC
<b>Total</b>	µg	<b>1.10</b>		<b>0.00</b>		<b>1.80</b>		NC	NC	NC

**Notes:**

µg - Microgram

NC - Not calculated

Destruction efficiencies were not calculated if either the influent or effluent samples were estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Total destruction efficiencies that include the estimated results of any individual compound will be considered an estimated value.

**Qualifiers:**

U - below reported quantitation limit

/ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.16**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	01/29/09			
		SBPA ISVE		Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U	ND	U
1,2-Dichlorobenzene	µg	2.6	J	1.4	J
1,3-Dichlorobenzene	µg	ND	U	ND	U
1,4-Dichlorobenzene	µg	0.95	J	ND	U
2,4,5-Trichlorophenol	µg	ND	U	ND	U
2,4,6-Trichlorophenol	µg	ND	U	ND	U
2,4-Dichlorophenol	µg	ND	U	ND	U
2,4-Dimethylphenol	µg	ND	U	ND	U
2,4-Dinitrophenol	µg	ND	U	ND	U
2,4-Dinitrotoluene	µg	ND	U	ND	U
2,6-Dinitrotoluene	µg	ND	U	ND	U
2-Chloronaphthalene	µg	ND	U	ND	U
2-Chlorophenol	µg	ND	U	ND	U
2-Methylnaphthalene	µg	ND	U	ND	U
2-Methylphenol	µg	ND	U	ND	U
2-Nitroaniline	µg	ND	U	ND	U
2-Nitrophenol	µg	ND	U	ND	U
3,3,-Dichlorobenzidine	µg	ND	U	ND	U
3/4-Methylphenol	µg	ND	U	ND	U
3-Nitroaniline	µg	ND	U	ND	U
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U
4-Bromophenyl phenyl ether	µg	ND	U	ND	U
4-Chloro-3-methylphenol	µg	ND	U	ND	U
4-Chloroaniline	µg	ND	U	ND	U
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U
4-Nitroaniline	µg	ND	U	ND	U
4-Nitrophenol	µg	ND	U	ND	U
Acenaphthene	µg	ND	U	ND	U
Acenaphthylene	µg	ND	U	ND	U
Anthracene	µg	ND	U	ND	U
Benzo[a]anthracene	µg	ND	U	ND	U
Benzo[a]pyrene	µg	ND	U	ND	U
Benzo[b]fluoranthene	µg	ND	U	ND	U
Benzo[g,h,i]perylene	µg	ND	U	ND	U
Benzo[k]fluoranthene	µg	ND	U	ND	U
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U
Bis(2-chloroethyl)ether	µg	ND	U	ND	U
Bis(2-chloroisopropyl)ether	µg	ND	U	ND	U
Bis(2-ethylhexyl)phthalate	µg	2.8	J	3.6	J
Butyl benzyl phthalate	µg	ND	U	ND	U
Carbazole	µg	ND	U	ND	U
Chrysene	µg	ND	U	ND	U
Dibenz[a,h]anthracene	µg	ND	U	ND	U
Dibenzofuran	µg	ND	U	ND	U
Diethyl phthalate	µg	ND	U	ND	U
Dimethyl phthalate	µg	ND	U	ND	U
Di-n-butyl phthalate	µg	ND	U	ND	U
Di-n-octyl phthalate	µg	ND	U	ND	U
Fluoranthene	µg	ND	U	ND	U
Fluorene	µg	ND	U	ND	U
Hexachlorobenzene	µg	ND	U	ND	U
Hexachlorobutadiene	µg	1.0	J	ND	U
Hexachlorocyclopentadiene	µg	ND	U	ND	U
Hexachloroethane	µg	ND	U	ND	U

**Table 3.16**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - January 2009**  
**American Chemical Service**  
**Griffith, Indiana**

<b>Compounds</b>	<b>Units</b>	<b>01/29/09</b>			
		<b>SBPA ISVE</b>		<b>Off-Site ISVE</b>	
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U
Isophorone	µg	ND	U	1.4	J
Naphthalene	µg	1.2		3.8	
Nitrobenzene	µg	ND	U	ND	U
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U
N-Nitrosodiphenylamine	µg	ND	U	ND	U
Pentachlorophenol	µg	ND	U	ND	U
Phenanthrene	µg	ND	U	ND	U
Phenol	µg	ND	U	ND	U
Pyrene	µg	ND	U	ND	U
<b>Total</b>	<b>µg</b>	<b>8.55</b>		<b>10.20</b>	

**Notes:**

µg - Microgram

NC - Not calculated

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.17**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09			
		SBPA ISVE		Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U	ND	U
1,2-Dichlorobenzene	µg	1.4	J	1.7	J
1,3-Dichlorobenzene	µg	ND	U	ND	U
1,4-Dichlorobenzene	µg	ND	U	ND	U
2,4,5-Trichlorophenol	µg	ND	U	ND	U
2,4,6-Trichlorophenol	µg	ND	U	ND	U
2,4-Dichlorophenol	µg	ND	U	ND	U
2,4-Dimethylphenol	µg	ND	U	ND	U
2,4-Dinitrophenol	µg	ND	U/UJ	ND	U/UJ
2,4-Dinitrotoluene	µg	ND	U	ND	U
2,6-Dinitrotoluene	µg	ND	U	ND	U
2-Chloronaphthalene	µg	ND	U	ND	U
2-Chlorophenol	µg	ND	U	ND	U
2-Methylnaphthalene	µg	ND	U	0.94	J
2-Methylphenol	µg	ND	U	ND	U
2-Nitroaniline	µg	ND	U	ND	U
2-Nitrophenol	µg	ND	U	ND	U
3,3-Dichlorobenzidine	µg	ND	U	ND	U
3/4-Methylphenol	µg	ND	U	ND	U
3-Nitroaniline	µg	ND	U	ND	U
4,6-Dinitro-2-methylphenol	µg	ND	U/UJ	ND	U/UJ
4-Bromophenyl phenyl ether	µg	ND	U	ND	U
4-Chloro-3-methylphenol	µg	ND	U	ND	U
4-Chloroaniline	µg	ND	U	ND	U
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U
4-Nitroaniline	µg	ND	U	ND	U
4-Nitrophenol	µg	ND	U	ND	U
Acenaphthene	µg	ND	U	ND	U
Acenaphthylene	µg	ND	U	ND	U
Anthracene	µg	ND	U	ND	U
Benzo[a]anthracene	µg	ND	U	ND	U
Benzo[a]pyrene	µg	ND	U	ND	U
Benzo[b]fluoranthene	µg	ND	U	ND	U
Benzo[g,h,i]perylene	µg	ND	U	ND	U
Benzo[k]fluoranthene	µg	ND	U	ND	U
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U
Bis(2-chloroethyl)ether	µg	ND	U	ND	U
Bis(2-chloroisopropyl)ether	µg	ND	U/UJ	ND	U/UJ
Bis(2-ethylhexyl)phthalate	µg	ND	U	3.4	J
Butyl benzyl phthalate	µg	9.4	J	ND	U
Carbazole	µg	ND	U	ND	U
Chrysene	µg	ND	U	ND	U
Dibenz[a,h]anthracene	µg	ND	U	ND	U
Dibenzofuran	µg	ND	U	ND	U
Diethyl phthalate	µg	ND	U	ND	U
Dimethyl phthalate	µg	ND	U	ND	U
Di-n-butyl phthalate	µg	ND	U	ND	U
Di-n-octyl phthalate	µg	ND	U	ND	U
Fluoranthene	µg	ND	U	ND	U
Fluorene	µg	ND	U	ND	U
Hexachlorobenzene	µg	ND	U	ND	U
Hexachlorobutadiene	µg	ND	U	ND	U
Hexachlorocyclopentadiene	µg	ND	U	ND	U
Hexachloroethane	µg	ND	U	ND	U

**Table 3.17**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - February 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	02/12/09			
		SBPA ISVE		Off-Site ISVE	
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U
Isophorone	µg	ND	U	ND	U
Naphthalene	µg	1.2		4.6	
Nitrobenzene	µg	ND	U	ND	U
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U
N-Nitrosodiphenylamine	µg	ND	U	ND	U
Pentachlorophenol	µg	ND	U	ND	U
Phenanthere	µg	ND	U	ND	U
Phenol	µg	ND	U	ND	U
Pyrene	µg	ND	U	ND	U
<b>Total</b>	<b>µg</b>	<b>12.00</b>		<b>10.64</b>	

**Notes:**

µg - Microgram

NC - Not calculated

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

UJ - Indicates the compound or analyte was analyzed for but not detected.

The sample detection limit is an estimated value.

\_/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.18**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09			
		SBPA ISVE		Off-Site ISVE	
1,2,4-Trichlorobenzene	µg	ND	U	ND	U
1,2-Dichlorobenzene	µg	1.3	J	2.6	J
1,3-Dichlorobenzene	µg	ND	U	ND	U
1,4-Dichlorobenzene	µg	ND	U	ND	U
2,4,5-Trichlorophenol	µg	ND	U	ND	U
2,4,6-Trichlorophenol	µg	ND	U	ND	U
2,4-Dichlorophenol	µg	ND	U	ND	U
2,4-Dimethylphenol	µg	ND	U	ND	U
2,4-Dinitrophenol	µg	ND	U	ND	U
2,4-Dinitrotoluene	µg	ND	U	ND	U
2,6-Dinitrotoluene	µg	ND	U	ND	U
2-Chloronaphthalene	µg	ND	U	ND	U
2-Chlorophenol	µg	ND	U	ND	U
2-Methylnaphthalene	µg	ND	U	1.5	J
2-Methylphenol	µg	ND	U	ND	U
2-Nitroaniline	µg	ND	U	ND	U
2-Nitrophenol	µg	ND	U	ND	U
3,3'-Dichlorobenzidine	µg	ND	U	ND	U
3/4-Methylphenol	µg	ND	U	ND	U
3-Nitroaniline	µg	ND	U	ND	U
4,6-Dinitro-2-methylphenol	µg	ND	U	ND	U
4-Bromophenyl phenyl ether	µg	ND	U	ND	U
4-Chloro-3-methylphenol	µg	ND	U	ND	U
4-Chloroaniline	µg	ND	U	ND	U
4-Chlorophenyl phenyl ether	µg	ND	U	ND	U
4-Nitroaniline	µg	ND	U	ND	U
4-Nitrophenol	µg	ND	U	ND	U
Acenaphthene	µg	ND	U	ND	U
Acenaphthylene	µg	ND	U	ND	U
Anthracene	µg	ND	U	ND	U
Benzo[a]anthracene	µg	ND	U	ND	U
Benzo[a]pyrene	µg	ND	U	ND	U
Benzo[b]fluoranthene	µg	ND	U	ND	U
Benzo[g,h,i]perylene	µg	ND	U	ND	U
Benzo[k]fluoranthene	µg	ND	U	ND	U
Bis(2-chloroethoxy)methane	µg	ND	U	ND	U
Bis(2-chloroethyl)ether	µg	ND	U	ND	U
Bis(2-chloroisopropyl)ether	µg	ND	U	ND	U
Bis(2-ethylhexyl)phthalate	µg	ND	U	ND	U
Butyl benzyl phthalate	µg	ND	U	ND	U
Carbazole	µg	ND	U	ND	U
Chrysene	µg	ND	U	ND	U
Dibenz[a,h]anthracene	µg	ND	U	ND	U
Dibenzofuran	µg	ND	U	ND	U
Diethyl phthalate	µg	ND	U	ND	U
Dimethyl phthalate	µg	ND	U	ND	U
Di-n-butyl phthalate	µg	ND	U	ND	U
Di-n-octyl phthalate	µg	ND	U	ND	U
Fluoranthene	µg	ND	U	ND	U
Fluorene	µg	ND	U	ND	U
Hexachlorobenzene	µg	ND	U	ND	U
Hexachlorobutadiene	µg	ND	U	ND	U
Hexachlorocyclopentadiene	µg	ND	U	ND	U
Hexachloroethane	µg	ND	U	ND	U

**Table 3.18**  
**SBPA and Off-Site ISVE System Results**  
**for Method TO-13 (SVOCs) - March 2009**  
**American Chemical Service**  
**Griffith, Indiana**

Compounds	Units	03/10/09			
		SBPA ISVE		Off-Site ISVE	
Indeno[1,2,3cd]pyrene	µg	ND	U	ND	U
Isophorone	µg	ND	U	3	J
Naphthalene	µg	1.7		7.2	
Nitrobenzene	µg	ND	U	ND	U
N-Nitrosodi-n-propylamine	µg	ND	U	ND	U
N-Nitrosodiphenylamine	µg	ND	U	ND	U
Pentachlorophenol	µg	ND	U	ND	U
Phenanthrene	µg	ND	U	ND	U
Phenol	µg	ND	U	ND	U
Pyrene	µg	ND	U	ND	U
<b>Total</b>	<b>µg</b>	<b>3.00</b>		<b>14.30</b>	

**Notes:**

µg - Microgram

NC - Not calculated

**Qualifiers:**

J - Result is estimated

U - below reported quantitation limit

/\_ - Laboratory data qualifier

/\_ - Data validation qualifier

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac (" H <sub>2</sub> O)	VOCs (ppm)	Comments
SVE-01	1/29/2009	130	57.5	1	
	2/23/2009	6	56.5	25	
	3/19/2009	31	58.5	180	
SVE-02	1/29/2009	Water	57.5	1	
	2/23/2009	10	56.0	25	
	3/19/2009	4	58.0	280	
SVE-03	1/29/2009	122	58.0	1	
	2/23/2009	11	57.0	20	
	3/19/2009	4	58.0	120	
SVE-04	1/29/2009	21	57.0	1	
	2/23/2009	Water	56.5	15	
	3/19/2009	2	58.0	62	
SVE-05	1/29/2009	Water	57.5	2	
	2/23/2009	Water	56.5	25	
	3/19/2009	Water	58.0	158	
SVE-06	1/29/2009	125	57.0	2	
	2/23/2009	10	56.0	30	
	3/19/2009	2	58.0	232	
SVE-07	1/29/2009	Water	57.5	2	
	2/23/2009	Water	56.0	22	
	3/19/2009	Water	57.5	75	
SVE-08	1/29/2009	Water	57.0	0.2	
	2/23/2009	Water	56.5	25	
	3/19/2009	Water	57.5	52	
SVE-09	1/29/2009	Water	56.5	0.7	
	2/23/2009	186	56.0	25	
	3/19/2009	Water	57.0	57	
SVE-10	1/29/2009	Water	57.0	0	
	2/23/2009	Water	56.0	30	
	3/19/2009	Water	58.0	102	
SVE-11	1/29/2009	Water	56.5	0.2	
	2/23/2009	Water	56.0	30	
	3/19/2009	412	57.5	115	
SVE-12	1/29/2009	Water	57.0	0.8	
	2/23/2009	Water	56.0	25	
	3/19/2009	Water	57.5	50	
SVE-13	1/29/2009	17	56.0	70	
	2/23/2009	66	54.5	130	
	3/19/2009	16	55.5	390	

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac (" H <sub>2</sub> O)	VOCs (ppm)	Comments
SVE-14	1/29/2009	Water	55.0	20	
	2/23/2009	Water	54.0	90	
	3/19/2009	Water	55.5	270	
SVE-15	1/29/2009	24	56.5	15	
	2/23/2009	12	55.5	25	
	3/19/2009	Water	57.0	154	
SVE-16	1/29/2009	Water	56.0	20	
	2/23/2009	140	51.0	30	
	3/19/2009	117	52.5	147	
SVE-17	1/29/2009	Water	56.0	15	
	2/23/2009	Water	55.0	30	
	3/19/2009	Water	56.5	152	
SVE-18	1/29/2009	17	56.5	20	
	2/23/2009	Water	55.0	70	
	3/19/2009	Water	54.5	215	
SVE-19	1/29/2009	246	53.0	5	
	2/23/2009	Water	53.0	25	
	3/19/2009	Water	55.0	156	
SVE-20	1/29/2009	33	57.0	7	
	2/23/2009	Water	55.0	20	
	3/19/2009	Water	56.5	125	
SVE-21	1/29/2009	213	55.5	8	
	2/23/2009	Water	54.0	15	
	3/19/2009	Water	56.5	125	
SVE-22	1/29/2009	53	3.0	85	
	2/23/2009	45	3.5	90	
	3/19/2009	47	5.5	220	
SVE-23	1/29/2009	37	56.0	30	
	2/23/2009	33	56.0	85	
	3/19/2009	37	57.0	310	
SVE-24	1/29/2009	Water	54.5	95	
	2/23/2009	Water	53.5	90	
	3/19/2009	Water	54.5	325	
SVE-25	1/29/2009	Water	56.0	80	
	2/23/2009	Water	54.0	80	
	3/19/2009	Water	54.5	220	
SVE-26	1/29/2009	30	56.0	10	
	2/23/2009	10	56.0	60	
	3/19/2009	23	57.0	97	

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac (" H <sub>2</sub> O)	VOCs (ppm)	Comments
SVE-27	1/29/2009	270	55.0	45	
	2/23/2009	131	55.0	40	
	3/19/2009	199	56.0	240	
SVE-28	1/29/2009	Water	56.5	50	
	2/23/2009	Water	55.0	95	
	3/19/2009	39	56.0	350	
SVE-29	1/29/2009	Water	55.0	50	
	2/23/2009	Water	54.0	45	
	3/19/2009	Water	55.5	130	
SVE-30	1/29/2009	16	55.0	60	
	2/23/2009	11	54.0	NM	System went down
	3/19/2009	28	55.5	270	
SVE-31	1/29/2009	12	55.0	45	
	2/23/2009	14	53.5	NM	System went down
	3/19/2009	Water	55.0	230	
SVE-32	1/29/2009	Water	40.0	55	
	2/23/2009	Water	55.0	NM	System went down
	3/19/2009	38	55.5	210	
SVE-33	1/29/2009	82	55.5	60	
	2/23/2009	11	56.0	NM	System went down
	3/19/2009	27	56.5	250	
SVE-34	1/29/2009	Water	55.5	65	
	2/23/2009	15	55.0	NM	System went down
	3/19/2009	18	56.5	660	
SVE-35	1/29/2009	Water	53.5	70	
	2/23/2009	49	0.0	NM	System went down
	3/19/2009	39	54.0	240	
SVE-36	1/29/2009	15	56.0	250	
	2/23/2009	15	55.0	NM	System went down
	3/19/2009	24	55.5	900	
SVE-37	1/29/2009	Water	56.0	80	
	2/23/2009	37	54.5	NM	System went down
	3/19/2009	20	56.0	345	
SVE-38	1/29/2009	Water	55.0	225	
	2/23/2009	23	54.0	NM	System went down
	3/19/2009	Water	56.0	880	
SVE-39	1/29/2009	Water	31.0	100	
	2/23/2009	Water	32.5	NM	System went down
	3/19/2009	145	33.5	425	

**Table 3.19**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-40	1/29/2009	10	55.0	140	
	2/23/2009	15	55.5	NM	System went down
	3/19/2009	26	56.5	250	
SVE-41	1/29/2009	240	30.5	110	
	2/23/2009	Water	31.5	NM	System went down
	3/19/2009	Water	32.5	445	
SVE-42	1/29/2009	13	56.0	100	
	2/23/2009	8	55.0	NM	System went down
	3/19/2009	22	55.5	270	
K-P Header 1	1/29/2009	-	58.0	0.8	
	2/23/2009	-	56.0	30	
	3/19/2009	-	58.5	143	
K-P Header 2	1/29/2009	-	57.5	2	
	2/23/2009	-	56.0	25	
	3/19/2009	-	58.0	129	
OFCA Header 1	1/29/2009	-	56.5	4	
	2/23/2009	-	55.0	20	
	3/19/2009	-	56.5	125	
OFCA Header 2	1/29/2009	-	57.0	15	
	2/23/2009	-	55.0	25	
	3/19/2009	-	57.0	137	
OFCA Header 3	1/29/2009	-	57.0	20	
	2/23/2009	-	55.5	30	
	3/19/2009	-	58.0	151	

Notes:

"-" = data not collected

"Water" - water present in vapor stream, preventing data collection

NM = Not measured, reason given in comments column

Flow is measured using a VelociCalc 8384 flow meter.

Vacuum pressures are measured with an Extech Manometer Model 407910.

**Table 3.20**  
**Off-Site In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Date	KP1 Line Press (psia)	KP1 Flow (scfm)	KP1 Vac (" H <sub>2</sub> O)	KP2 Line Press (psia)	KP2 Flow (scfm)	KP2 Vac (" H <sub>2</sub> O)	OFCA1 Vac (" H <sub>2</sub> O)	OFCA2 Vac (" H <sub>2</sub> O)	OFCA3 Vac (" H <sub>2</sub> O)	Dilution Flow (cfm)	Blower Inf Line Press (psia)	Blower Inf Flow (scfm)
1/29/2009	12.6	164	58	12.6	164	57.5	56.5	57	57	0	12.4	891
2/23/2009	13.0	0	56	13.0	0	56	55	55	55.5	0	12.8	904
3/19/2009	12.8	0	58.5	12.8	0	58	56.5	57	58	0	12.7	1603

Date	Blower Inf Vac (" H <sub>2</sub> O)	Blower Inf VOC (ppm)	Blower Inf Temp. (°F)	Blower Eff Line Press (psia)	Blower Eff Flow (scfm)	Blower Eff Press (" H <sub>2</sub> O)	Blower Eff VOC (ppm)	Blower Eff Temp. (°F)	Filter Diff Press (" H <sub>2</sub> O)	Ambient Temperature (°F)	Barometric Pressure ("Hg)	Humidity (%)
1/29/2009	63.5	-	48	15.6	764	26.0	60	120	9.0	25	29.89	74%
2/23/2009	62.5	-	48	15.9	866	25.0	NM	115	9.0	26	30.58	51%
3/19/2009	60	-	50	15.5	723	16.0	-	118	9.0	39	30.33	45%

**Notes:**

"-" = Data not collected

NM = Not measured for specific date due to system being down

cfm = Cubic feet per minute

" H<sub>2</sub>O = Inches of water

ppm = Parts per million

VOCs = Volatile organic compounds

psia = Pounds per square inch, atmosphere

" Hg = Inches of mercury

°F = Degrees Fahrenheit

**Table 3.21**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-43	1/29/2009	12	78.0	105	
	2/23/2009	14	60.5	45	
	3/19/2009	57	61.0	287	
SVE-44	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-45	1/29/2009	15	77.5	110	
	2/23/2009	15	59.0	35	
	3/19/2009	52	61.0	380	
SVE-46	1/29/2009	12	77.5	150	
	2/23/2009	14	59.0	50	
	3/19/2009	30	61.0	285	
SVE-47	1/29/2009	21	78.0	120	
	2/23/2009	13	60.0	230	
	3/19/2009	24	61.0	390	
SVE-48	1/29/2009	8	78.0	110	
	2/23/2009	12	59.5	220	
	3/19/2009	13	61.0	840	
SVE-49	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-50	1/29/2009	14	79.5	60	
	2/23/2009	28	59.0	90	
	3/19/2009	52	61.0	459	
SVE-51	1/29/2009	20	78.0	80	
	2/23/2009	14	59.5	65	
	3/19/2009	55	60.5	560	
SVE-52	1/29/2009	12	78.5	140	
	2/23/2009	24	59.5	75	
	3/19/2009	65	61.0	400	
SVE-53	1/29/2009	13	77.5	50	
	2/23/2009	12	59.0	220	
	3/19/2009	61	61.5	2200	
SVE-54	1/29/2009	17	-	-	Air injection well
	2/23/2009	16	-	-	Air injection well
	3/19/2009	-	-	-	Air injection well
SVE-55	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-56	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-57	1/29/2009	12	78.0	30	
	2/23/2009	10	59.0	290	
	3/19/2009	19	61.0	1950	
SVE-58	1/29/2009	Water	82.5	95	
	2/23/2009	14	61.5	110	
	3/19/2009	Water	63.0	375	

**Table 3.21**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-59	1/29/2009	14	-	-	Air injection well
	2/23/2009	14	-	-	Air injection well
	3/19/2009	-	-	-	Air injection well
SVE-60	1/29/2009	13	82.0	55	
	2/23/2009	13	61.5	120	
	3/19/2009	43	63.0	850	
SVE-61	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-62	1/29/2009	9	78.0	22	
	2/23/2009	8	60.0	40	
	3/19/2009	27	61.0	570	
SVE-63	1/29/2009	7	77.5	25	
	2/23/2009	7	2.5	60	
	3/19/2009	12	60.5	172	
SVE-64	1/29/2009	12	78.0	40	
	2/23/2009	14	60.0	65	
	3/19/2009	8	61.0	800	
SVE-65	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-66	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-67	1/29/2009	Water	77.5	20	
	2/23/2009	Water	34.5	130	
	3/19/2009	Water	61.0	412	
SVE-68	1/29/2009	Water	77.5	30	
	2/23/2009	5	60.0	200	
	3/19/2009	120	61.0	1200	
SVE-69	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-70	1/29/2009	33	2.5	75	
	2/23/2009	-	-	-	
	3/19/2009	27	4.0	460	
SVE-71	1/29/2009	23	82.5	70	
	2/23/2009	17	61.5	160	
	3/19/2009	58	63.0	950	
SVE-72	1/29/2009	8	82.5	65	
	2/23/2009	14	62.0	70	
	3/19/2009	67	63.0	350	
SVE-73	1/29/2009	Water	82.0	110	
	2/23/2009	6	61.5	5	
	3/19/2009	44	63.0	65	
SVE-74	1/29/2009	97	82.0	140	
	2/23/2009	21	62.0	30	
	3/19/2009	55	63.0	125	

**Table 3.21**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Well ID	Date	Flow (cfm)	Vac ( $\text{" H}_2\text{O}$ )	VOCs (ppm)	Comments
SVE-75	1/29/2009	Water	77.5	35	
	2/23/2009	Water	59.5	75	
	3/19/2009	79	61.0	750	
SVE-76	1/29/2009	58	78.5	25	
	2/23/2009	53	59.5	90	
	3/19/2009	Water	61.0	850	
SVE-77	1/29/2009	30	-	-	Air injection well
	2/23/2009	29	-	-	Air injection well
	3/19/2009	-	-	-	Air injection well
SVE-78	1/29/2009	Water	78.5	30	
	2/23/2009	Water	59.5	100	
	3/19/2009	20	61.0	820	
SVE-79	1/29/2009	-	-	-	
	2/23/2009	-	-	-	
	3/19/2009	-	-	-	
SVE-80	1/29/2009	17	-	-	Air injection well
	2/23/2009	19	-	-	Air injection well
	3/19/2009	-	-	-	Air injection well
SVE-81	1/29/2009	32	82.0	100	
	2/23/2009	11	61.0	85	
	3/19/2009	43	63.0	240	
SVE-82	1/29/2009	13	82.0	80	
	2/23/2009	7	61.5	140	
	3/19/2009	20	63.0	560	
SVE-83	1/29/2009	Water	82.5	105	
	2/23/2009	15	61.0	60	
	3/19/2009	46	63.0	135	
SVE-84	1/29/2009	26	-	-	Air injection well
	2/23/2009	26	-	-	Air injection well
	3/19/2009	-	-	-	Air injection well
SVE-85	1/29/2009	21	82.0	75	
	2/23/2009	19	61.0	50	
	3/19/2009	73	63.0	291	
SVE-86	1/29/2009	7	82.0	90	
	2/23/2009	13	61.0	50	
	3/19/2009	39	63.0	250	
SVE-87	1/29/2009	19	82.5	70	
	2/23/2009	12	61.0	40	
	3/19/2009	36	63.0	200	
SVE-88	1/29/2009	83	82.0	85	
	2/23/2009	25	61.5	3	
	3/19/2009	64	63.0	140	

**Notes:**

"-" = data not collected

"Water" - water present in vapor stream, preventing data collection

NM = Not measured, reason given in comments column

Flow is measured using a VelociCalc 8384 flow meter.

Vacuum pressures are measured with an Extech Manometer Model 407910.

**Table 3.22**  
**SBPA In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data**  
**First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Date	North Header			South Header			Dilution Flow (cfm)	Blower Inf Line Press (psia)	Blower Inf Flow (scfm)	Blower Inf Vac (" H <sub>2</sub> O)	Blower Inf VOC (ppm)
	Line Press (psia)	Flow (scfm)	Vac (" H <sub>2</sub> O)	Line Press (psia)	Flow (scfm)	Vac (" H <sub>2</sub> O)					
1/29/2009	11.7	1052	81.5	11.7	221	82.5	0	11.1	714	100	-
2/23/2009	13.0	0	56.0	12.8	2207	62.0	0	11.4	491	100	-
3/19/2009	12.7	2542	62.5	12.6	3320	63.0	0	11.3	1429	100	-

Date	Blower Inf Temp. (°F)	Blower Eff Line Press (psia)	Blower Eff Flow (scfm)	Blower Eff Press (" H <sub>2</sub> O)	Blower Eff VOC (ppm)	Blower Eff Temp. (°F)	Filter Diff Press (" H <sub>2</sub> O)	Ambient Temperature (°F)	Barometric Pressure ("Hg)	Humidity (%)
1/29/2009	57	16.2	1094	43.0	-	128	7.0	30	29.87	69%
2/23/2009	52	16.8	1062	48.0	-	104	8.0	19	30.58	68%
3/19/2009	50	16.7	875	48.0	-	130	7.0	43	30.38	57%

**Notes:**

"-" = Data not collected

scfm = Cubic feet per minute

" H<sub>2</sub>O = Inches of water

ppm = Parts per million

VOCs = Volatile organic compounds

psia = Pounds per square inch, atmosphere

" Hg = Inches of mercury

°F = Degrees Fahrenheit

**Table 6.1**  
**Water Table Elevations Across the Barrier Wall and Near the PGCS - First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

**Upper Aquifer Wells**

Well Designation	Reference Points			3/20/2009		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOIC	Level	Elevation		
MW11	6377	7329	640.47	4.46	636.01		n/a
MW13	5050	7814	634.08	2.90	631.18		n/a
MW37	5395	7976	636.78	4.09	632.69		n/a
MW46	4526	7424	633.32	2.39	630.93		n/a
MW48	5669	7814	636.36	3.82	632.54		n/a
MW49	5551	7650	637.00	4.15	632.85		n/a

**Staff Gauges & Piezometers**

Well Designation	Reference Points			3/20/2009		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOSG	Level	Elevation		
P23	4689	7018	636.18	5.03	631.15		n/a
P25	5131	7510	633.33	1.55	631.78		n/a
P26	4764	7309	634.23	3.48	630.75		n/a
P27	4904	7020	639.70	7.42	632.28		n/a
P28	5883	7486	644.53	9.14	635.39		n/a
P32	5746	7026	642.32	10.34	631.98		n/a
P40	5931	7241	638.77	3.69	635.08		n/a
P41	5663	7377	637.23	2.73	634.50		n/a
P49	5145	6949	638.98	9.38	629.60		n/a
SG13	4819	7209	631.53	4.48	630.01	TOSG = 6.0' mark	n/a

**PGCS Piezometer Sets**

Well Designation	Reference Points			3/20/2009		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOC	Level	Elevation		
P81	5577	7581	636.19	3.55	632.64		n/a
P82	5577	7572	635.77	3.43	632.34		n/a
P83	5577	7561.6	635.95	3.01	632.94		n/a
P84	5322	7603	634.35	2.69	631.66		n/a
P85	5326	7594	634.08	2.30	631.78		n/a
P86	5329	7585	634.41	2.64	631.77		n/a
P87	5121	7466	633.88	2.57	631.31		n/a
P88	5130	7460	633.90	2.60	631.30		n/a
P89	5137	7454	634.02	2.62	631.40		n/a
P90	4881	7152	634.45	3.62	630.83		n/a
P91	4889	7145	634.59	3.68	630.91		n/a
P92	4896	7138.1	633.87	3.16	630.71		n/a

**Table 6.1**  
**Water Table Elevations Across the Barrier Wall and Near the PGCS - First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

**BWES Water Level and Piezometer Pairs**

Well Designation	Reference Points			3/20/2009		Notes	Difference Across Barrier Wall (if applicable) <sup>1</sup>
	East	North	TOC	Level	Elevation		
P93R - Outside BW	n/a	n/a	639.05	7.34	631.71	Installed Nov. 2004	-2.18
P94R - Inside BW	n/a	n/a	640.99	11.46	629.53	Installed Nov. 2004	
P95 - Outside BW	5146	6532	638.58	5.72	632.86		-9.15
P96 - Inside BW	5156	6537	641.26	17.55	623.71		
P105 - Outside BW	5885	6678	638.86	2.06	636.80		-7.61
P106 - Inside BW	5871	6685	638.10	8.91	629.19		
P107 - Outside BW	5766	7339	637.42	2.64	634.78		-2.78
P108 - Inside BW	5757	7324	638.13	6.13	632.00		
P109 - Outside BW	5740	6387	644.30	7.59	636.71		-9.15
P110 - Inside BW	5705	6382	647.68	20.12	627.56		
P111 - Outside BW	5551	5950	650.03	13.76	636.27		-9.23
P112 - Inside BW	5525	5960	653.36	26.32	627.04		
P113 - Inside BW	5309	5693	657.53	30.75	626.78		-8.62
ORCPZ102 - Outside BW	5331	5612	652.47	17.07	635.40		
P114 - Inside BW	5035	5729	653.69	26.96	626.73		-8.64
P115 - Outside BW	4970	5708	652.50	17.13	635.37		
P116 - Inside BW	5031	6087	646.26	19.84	626.42		-8.05
P117 - Outside BW	5014	6087	643.93	9.46	634.47		
P118 - Inside BW	5402	6539	645.52	18.36	627.16		n/a

**Notes:**

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level.

TOIC = top of inner casing

TOC = top of casing

TOSG = top of staff gauge

n/a = not applicable

<sup>1</sup> A positive value indicates that the water level is higher inside the barrier wall. A negative value indicates that the water level is lower inside the barrier wall.

**Table 6.2**  
**Water Levels Inside Barrier Wall - First Quarter 2009**  
**American Chemical Service NPL Site**  
**Griffith, Indiana**

Date	On-Site Area					
	Target Level	P-29	P-31	P-32	P-36	P-49
1/9/2009	629.0	630.4	630.9	NM	NM	628.6
1/29/2009	629.0	630.4	630.9	629.7	626.4	628.8
2/12/2009	629.0	630.4	630.9	630.9	624.9	627.7
2/27/2009	629.0	630.4	630.9	631.0	624.9	628.2
3/20/2009	629.0	630.4	630.9	631.9	626.2	629.5

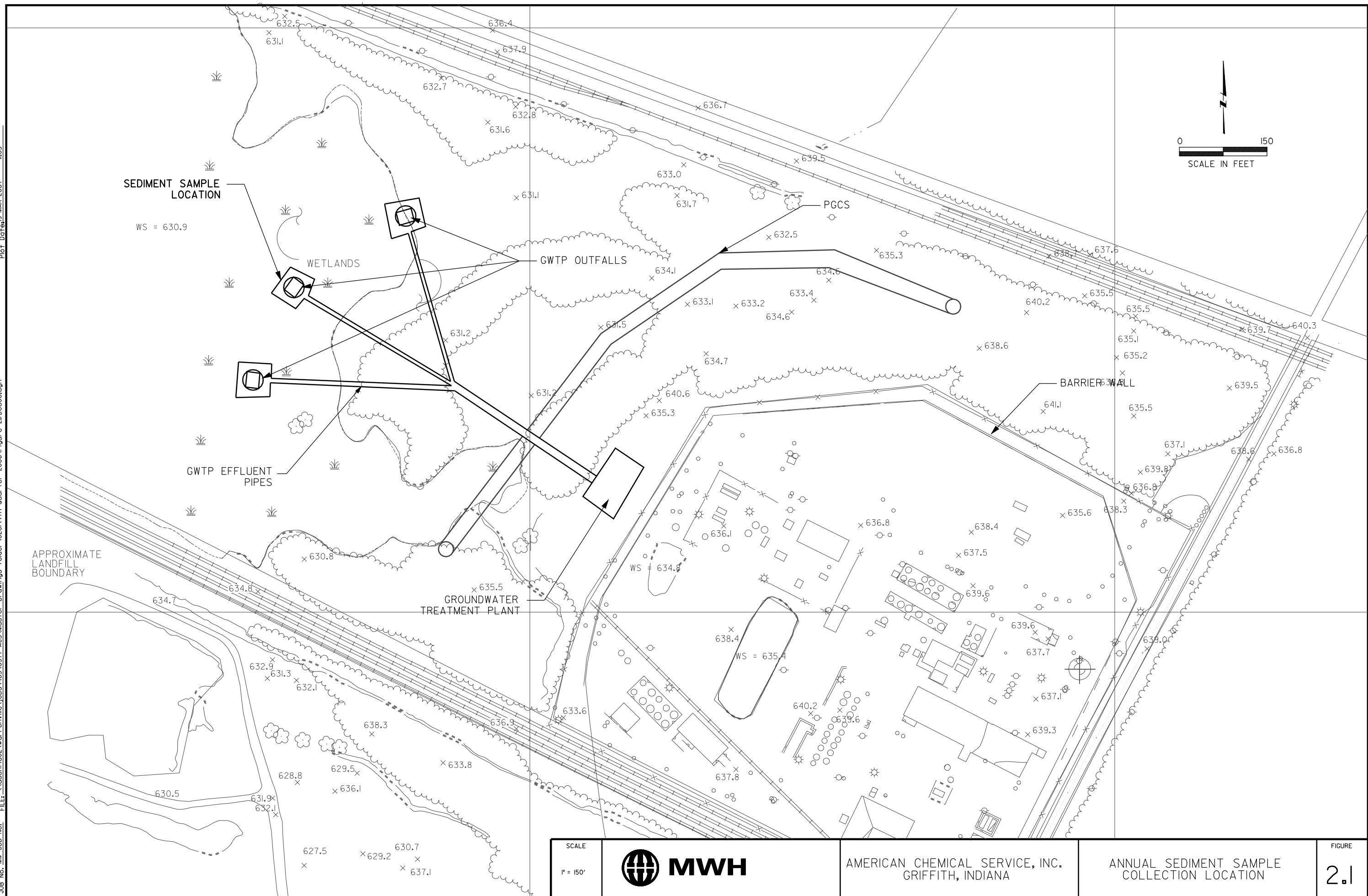
Date	Off-Site Area										
	Target Level	P-96	P-110	P-112	P-113	P-114	P-116	P-118	AS-7	AS-8	AS-9
1/9/2009	626.0	621.7	627.5	626.9	626.7	626.9	627.1	627.3	NM	NM	NM
1/29/2009	626.0	622.5	627.3	626.8	626.3	626.3	626.5	626.8	627.30	626.43	626.86
2/12/2009	626.0	620.6	626.3	625.7	625.2	625.1	625.0	626.2	NM	NM	NM
2/23/2009	626.0	NM	627.38	626.40	NM						
2/27/2009	626.0	620.7	626.1	625.4	624.9	624.7	624.5	625.9	NM	NM	NM
3/18/2009	626.0	NM	627.77	627.36	630.57						
3/20/2009	626.0	620.8	627.6	627.1	626.8	626.8	626.5	627.1	NM	NM	NM

**Notes:**

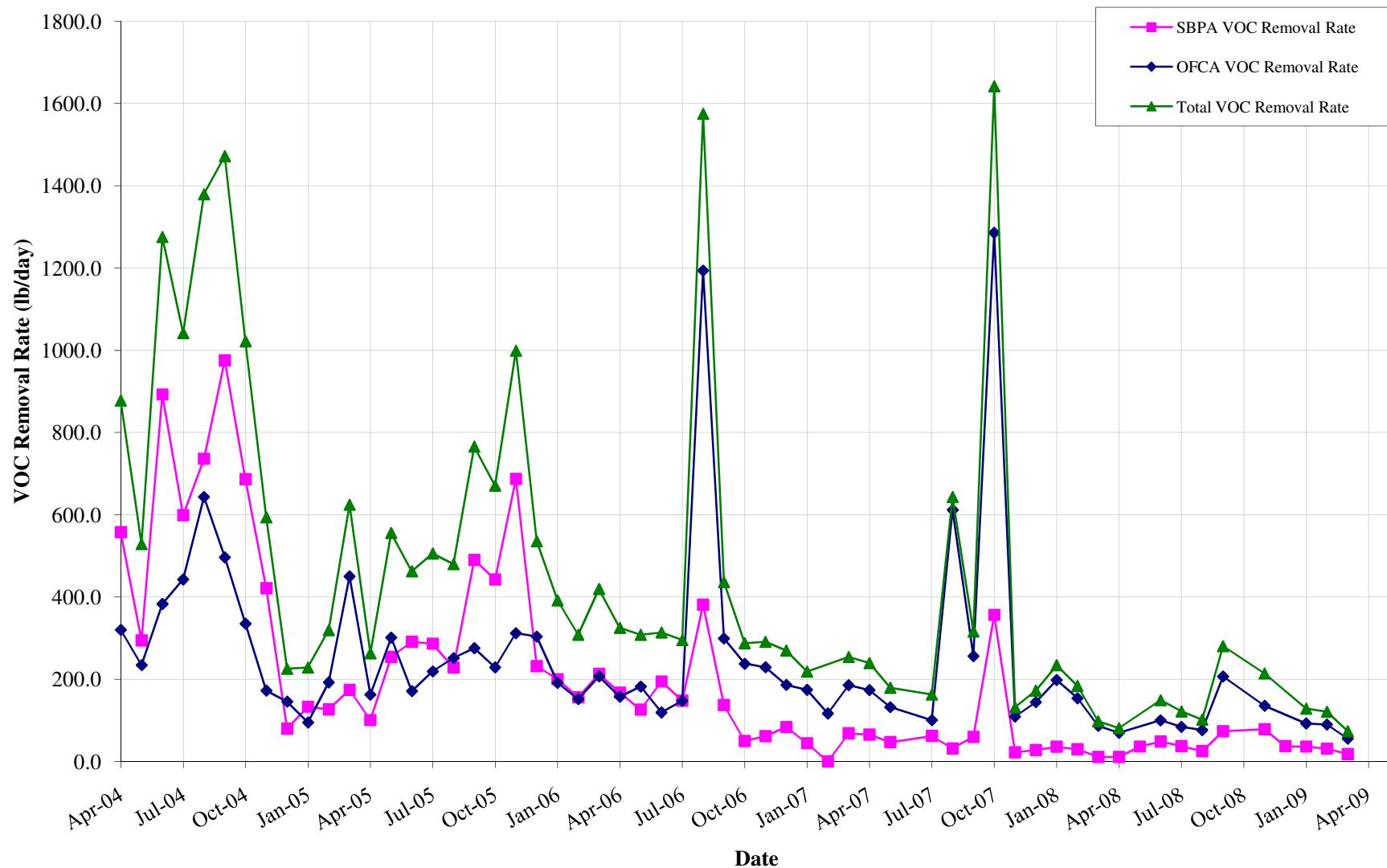
All water level elevations are in feet AMSL.

NM = Not measured

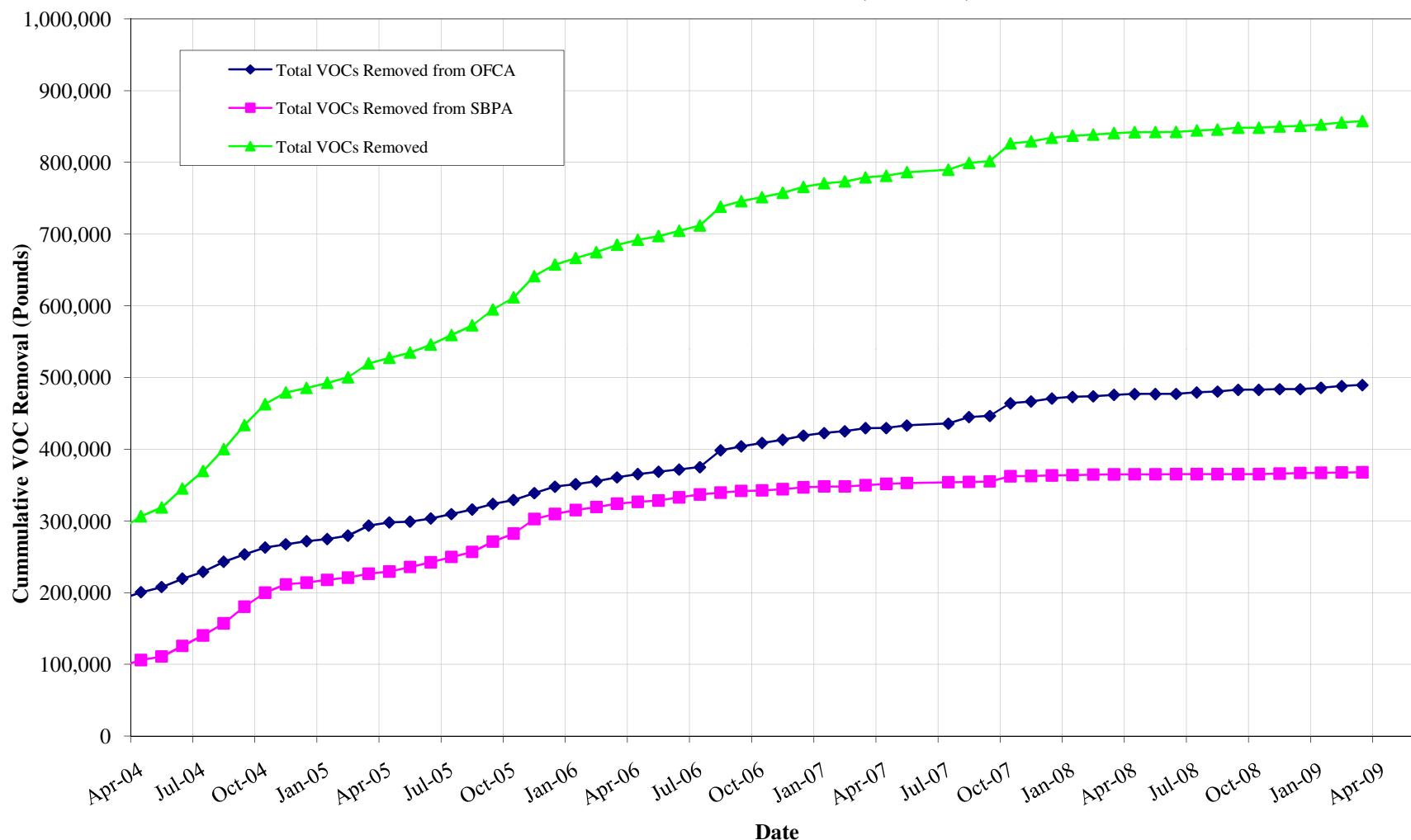
## **FIGURES**

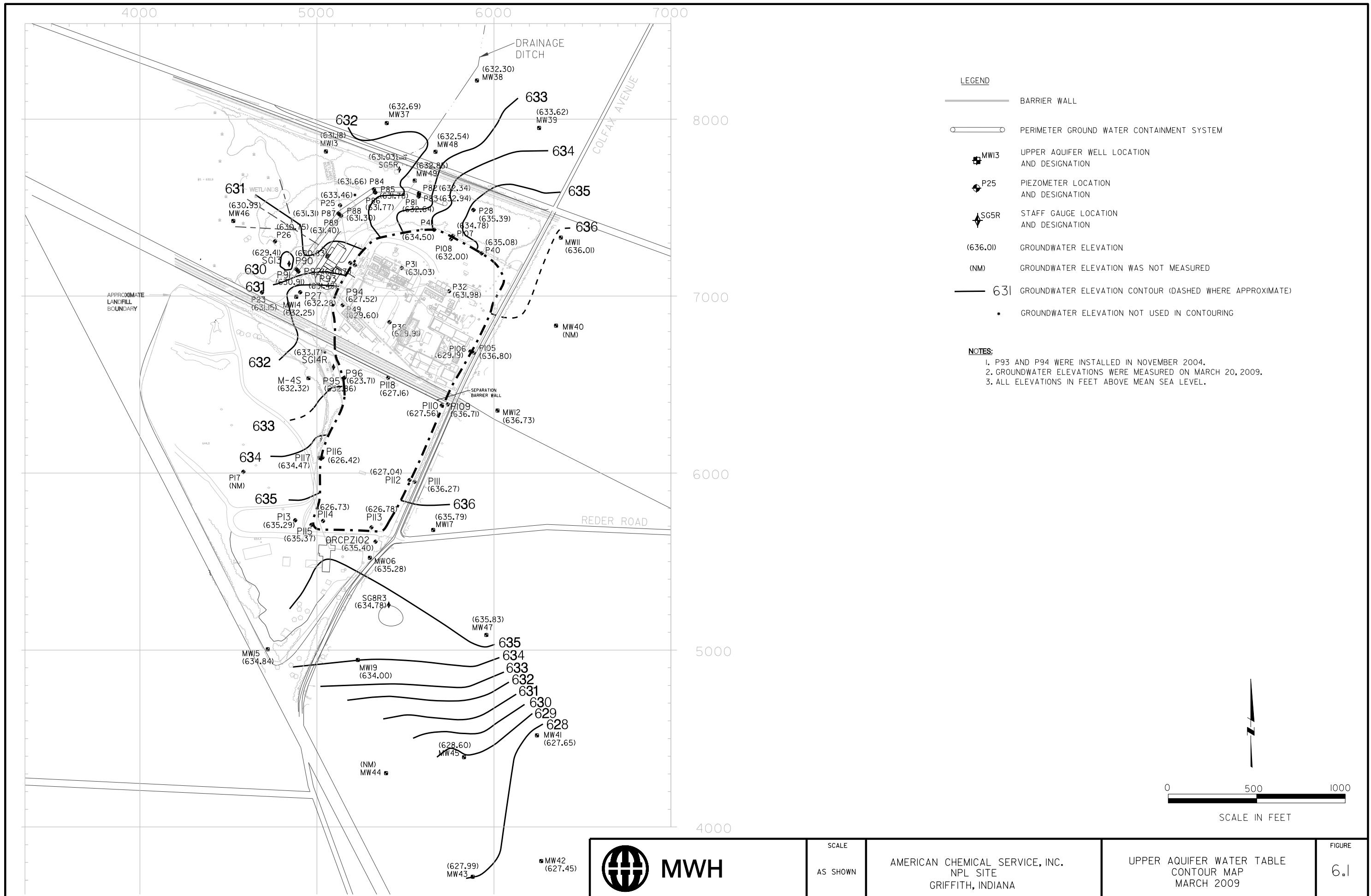


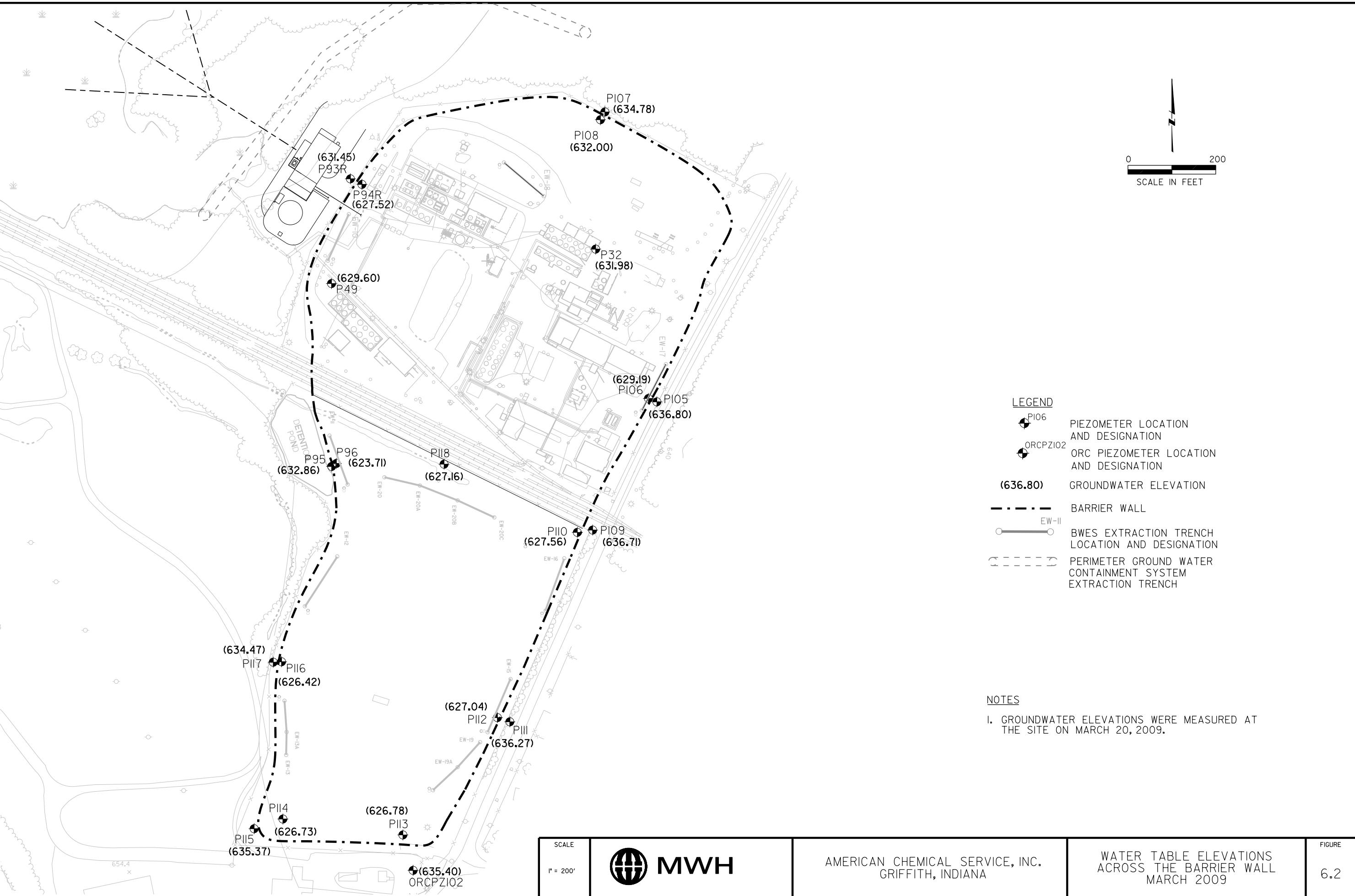
**Figure 3.1**  
**VOC Removal Rate**  
**American Chemical Services NPL Site, Griffith, IN**

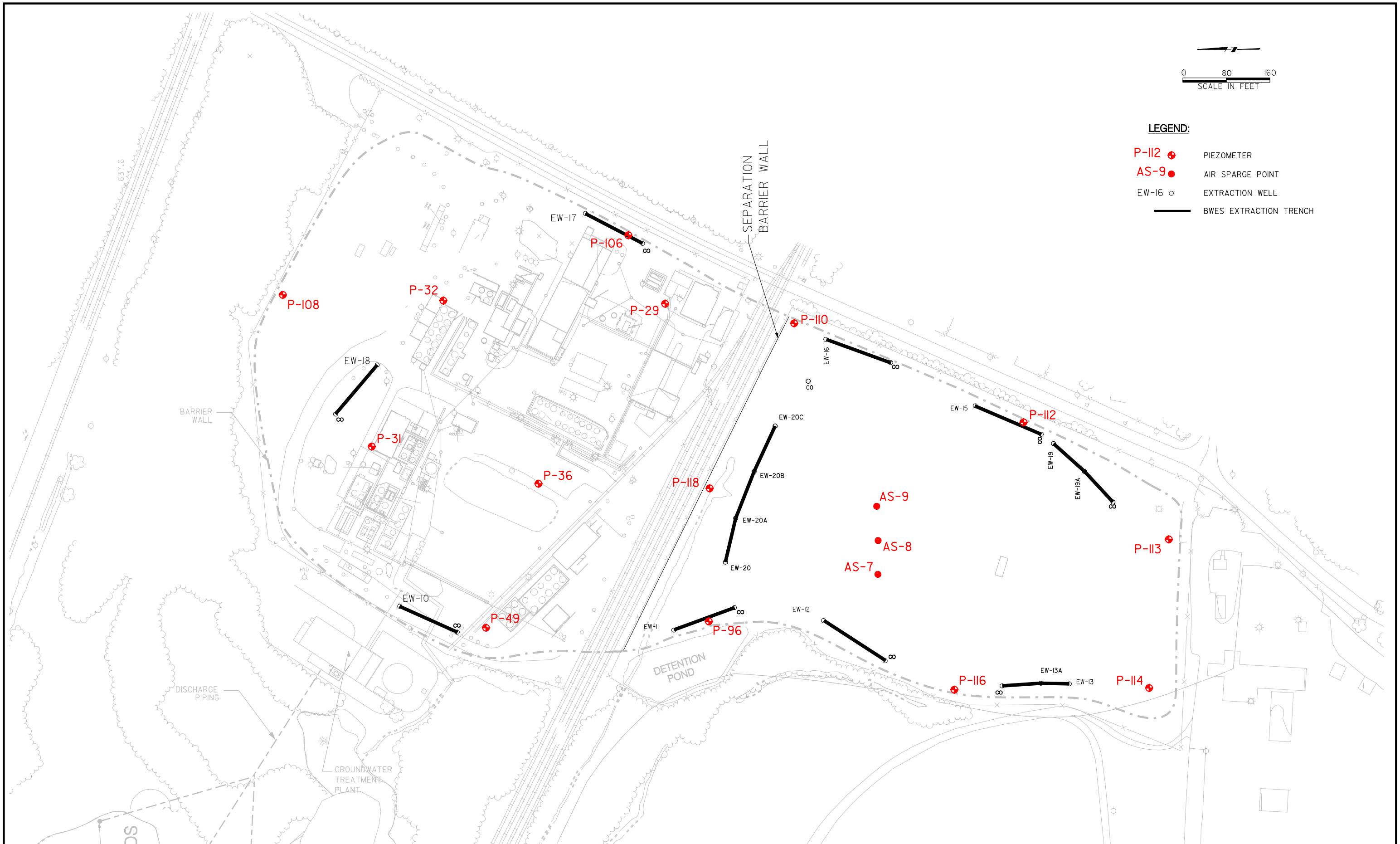


**Figure 3.2**  
**Total VOCs Removed**  
**American Chemical Services NPL Site, Griffith, IN**









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(PROJECT M)  
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OFFICER) \_\_\_\_\_ LICENSE NO. \_\_\_\_\_ D



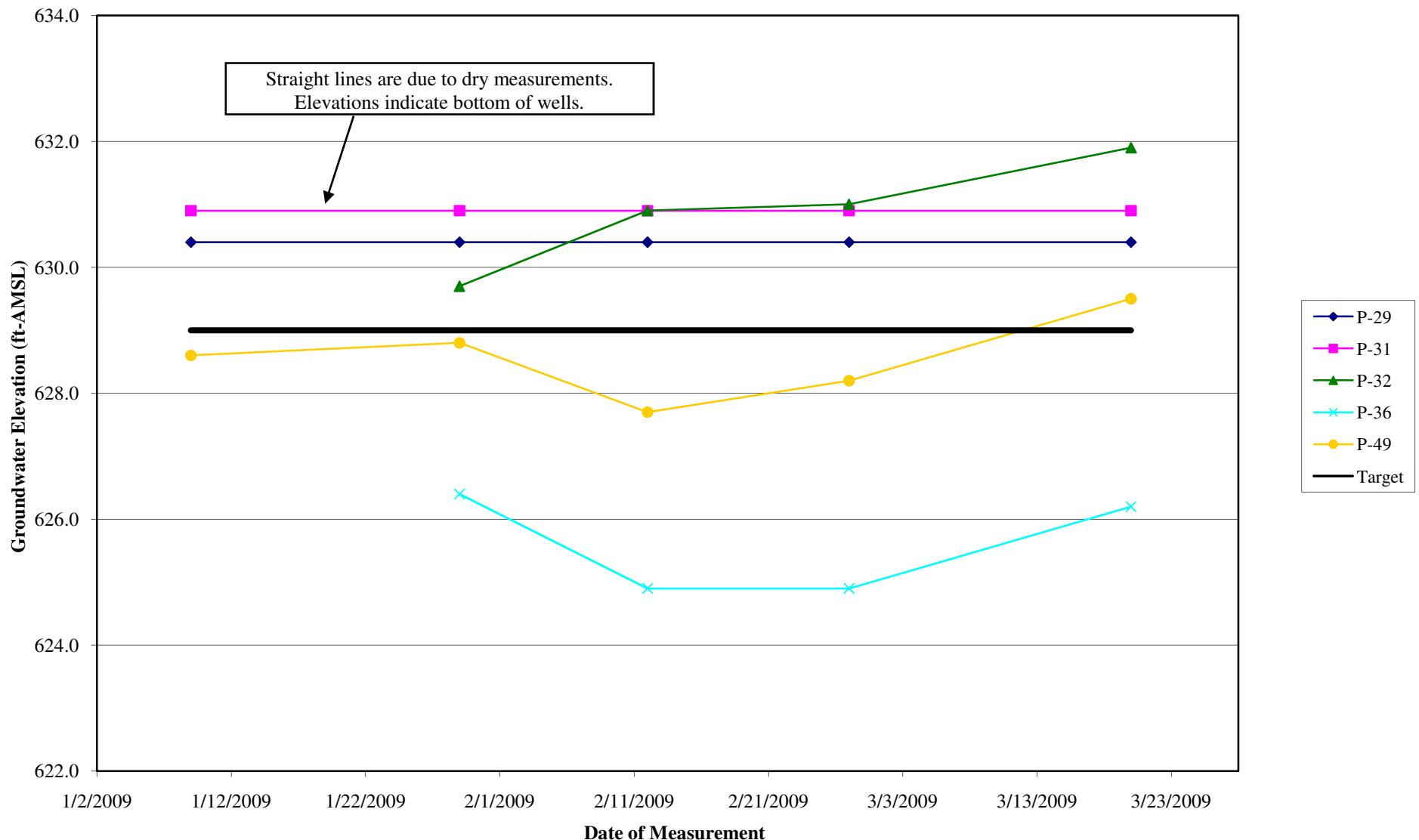
 MWH  
MONTGOMERY WATSON HARZ

A AMERICAN CHEMICAL SERVICE SUPERFUND SITE  
GRIFFITH, INDIANA

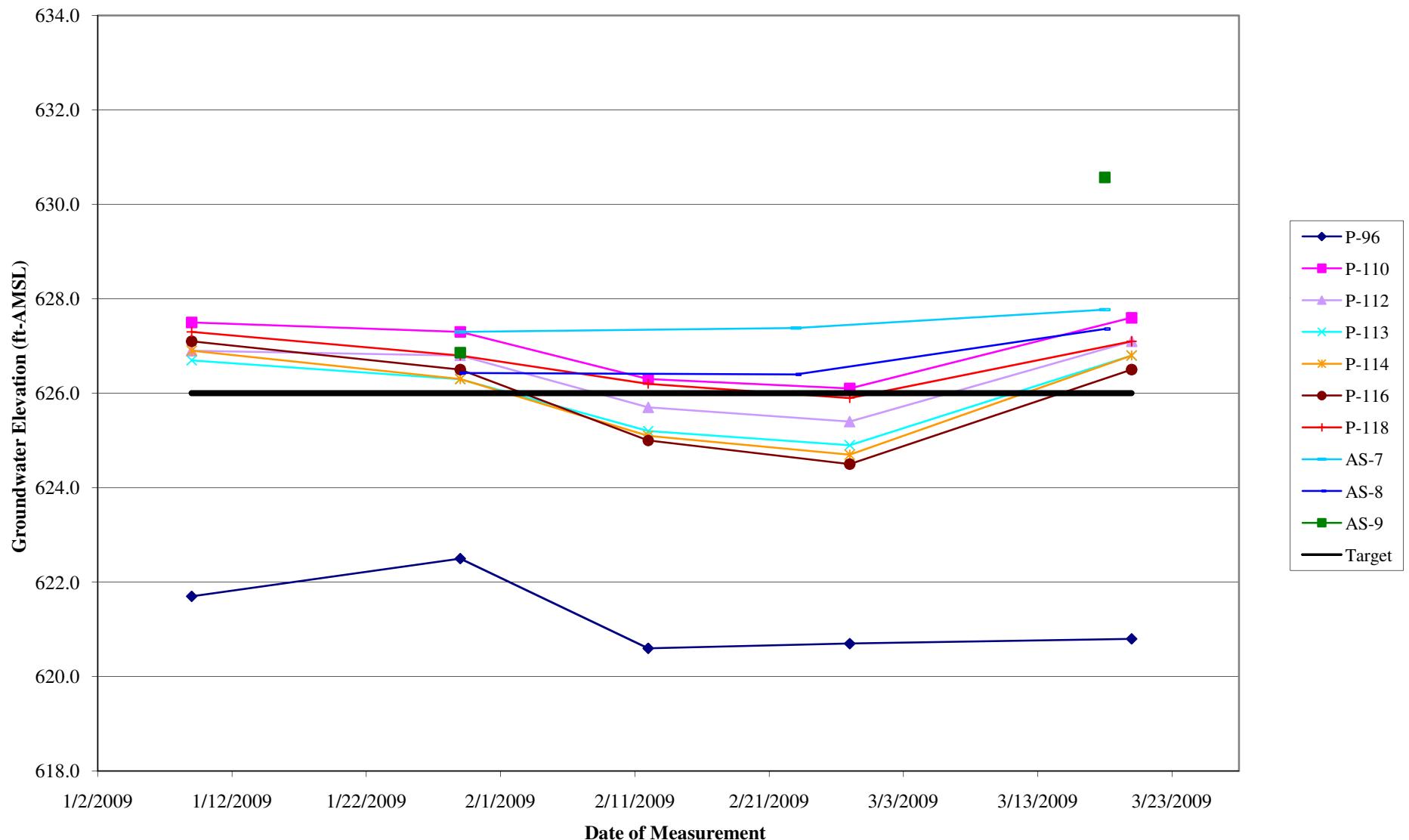
## GROUNDWATER LEVEL MEASURING LOCATIONS

## FIGURE 6.3

**Figure 6.4**  
**Water Level Trends Inside the Barrier Wall (Still Bottoms Pond Area)**  
**ACS NPL Site**  
**Griffith, Indiana**



**Figure 6.5**  
**Water Level Trends Inside the Barrier Wall (Off-Site Area)**  
**ACS NPL Site**  
**Griffith, Indiana**



**APPENDIX A**

**EFFLUENT ANALYTICAL DATA**

**January 15, 2009 Compliance Sample  
Laboratory Results**


  
**Microbac**
**ANALYTICAL RESULTS**

Date: Friday, January 23, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Quarterly GWTP / ACS  
**Client Sample ID:** Effluent  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0901474-01  
**Collection Date:** 01/15/09 13:45  
**Date Received:** 01/15/09 14:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
----------	----	--------	-----	----	------	-------	----	----------

PCB'S	Method: SW8082		Prep Date/Time: 01/16/09 08:51 Analyst: JLW				
Aroclor 1016	A	ND	0.00011	0.00049	mg/L	1	01/19/09 14:37
Aroclor 1221	A	ND	0.00049	0.00049	mg/L	1	01/19/09 14:37
Aroclor 1232	A	ND	0.00049	0.00049	mg/L	1	01/19/09 14:37
Aroclor 1242	A	ND	0.000096	0.00049	mg/L	1	01/19/09 14:37
Aroclor 1248	A	ND	0.00014	0.00049	mg/L	1	01/19/09 14:37
Aroclor 1254	A	ND	0.00016	0.00049	mg/L	1	01/19/09 14:37
Aroclor 1260	A	ND	0.00011	0.00049	mg/L	1	01/19/09 14:37
Surr: Tetrachloro-m-xylene	S	80.0	0	45.2-114	%REC	1	01/19/09 14:37
Surr: Decachlorobiphenyl	S	75.0	0	11.6-136	%REC	1	01/19/09 14:37

TOTAL METALS	Method: SW6010B		Prep Date/Time: 01/16/09 07:55 Analyst: AVC					
Arsenic	A	ND	0.0025	0.010	ppm	1	01/16/09 13:53	
Beryllium	A	ND	0.00000000014	0.0010	ppm	1	01/16/09 13:53	
Cadmium	A	ND	0.00030	0.0020	ppm	1	01/16/09 13:53	
Manganese	A	0.019	0.00030	0.0020	ppm	1	01/16/09 13:53	
Selenium	A	ND	0.0053	0.030	ppm	1	01/16/09 13:53	
Thallium	A	ND	0.0043	0.050	ppm	1	01/16/09 13:53	
Zinc	A	ND	0.0073	0.020	ppm	1	01/16/09 13:53	
TOTAL METALS	Method: SW7470A		Prep Date/Time: 01/19/09 18:00 Analyst: SAA					
Mercury	A	0.00015	0.000030	0.00020	Jb	mg/L	1	01/20/09 11:07

uP

SEMOVOLATILE ORGANICS	Method: SW8270C		Prep Date/Time: 01/16/09 10:24 Analyst: BEM				
Bis(2-ethylhexyl)phthalate	A	ND	0.0011	0.0099	mg/L	1	01/21/09 19:56
Bis(2-chloroethyl)ether	A	ND	0.00089	0.0099	mg/L	1	01/21/09 19:56
2,2'-oxybis(1-chloropropane)	A	ND	0.00089	0.0099	mg/L	1	01/21/09 19:56
Isophorone	A	ND	0.00099	0.0099	mg/L	1	01/21/09 19:56
3/4-Methylphenol	A	ND	0.00079	0.0099	mg/L	1	01/21/09 19:56
Pentachlorophenol	A	ND	0.0013	0.050	mg/L	1	01/21/09 19:56
Surr: Nitrobenzene-d5	S	41.7	0	10-121	%REC	1	01/21/09 19:56
Surr: 2-Fluorobiphenyl	S	45.2	0	10-109	%REC	1	01/21/09 19:56
Surr: Terphenyl-d14	S	66.7	0	10-130	%REC	1	01/21/09 19:56
Surr: Phenol-d5	S	17.7	0	10-100	%REC	1	01/21/09 19:56
Surr: 2-Fluorophenol	S	22.5	0	10-84.7	%REC	1	01/21/09 19:56
Surr: 2,4,6-Tribromophenol	S	58.3	0	10-120	%REC	1	01/21/09 19:56

**VOC'S**

Method: SW8260B

Prep Date/Time:

Analyst: MLT

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Friday, January 23, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Quarterly GWTP / ACS  
**Client Sample ID:** Effluent  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0901474-01  
**Collection Date:** 01/15/09 13:45  
**Date Received:** 01/15/09 14:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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VOC'S	Method: SW8260B			Prep Date/Time:			Analyst: MLT	
Acetone	A	ND	0.0020	0.0050	mg/L	1	01/20/09 13:13	<i>MJ</i>
Benzene	A	ND	0.00030	0.0010	mg/L	1	01/20/09 13:13	
2-Butanone	A	ND	0.0015	0.0020	mg/L	1	01/20/09 13:13	
Chloromethane	A	ND	0.00030	0.0020	mg/L	1	01/20/09 13:13	<i>MJ</i>
1,1-Dichloroethane	A	0.0016	0.00030	0.0010	mg/L	1	01/20/09 13:13	
cis-1,2-Dichloroethene	A	0.0050	0.00040	0.0010	mg/L	1	01/20/09 13:13	
Ethylbenzene	A	ND	0.00020	0.0010	mg/L	1	01/20/09 13:13	
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010	mg/L	1	01/20/09 13:13	
Methylene chloride	A	0.0016	0.00070	0.0020	J mg/L	1	01/20/09 13:13	
Tetrachloroethene	A	ND	0.00040	0.0010	mg/L	1	01/20/09 13:13	
Trichloroethene	A	ND	0.00030	0.0010	mg/L	1	01/20/09 13:13	
Vinyl chloride	A	0.00044	0.00040	0.0020	J mg/L	1	01/20/09 13:13	
1,4-Dichlorobenzene	A	ND	0.00020	0.0010	mg/L	1	01/20/09 13:13	
Surr: 4-Bromofluorobenzene	S	96.9	0	75.2-115	%REC	1	01/20/09 13:13	
Surr: Dibromofluoromethane	S	101	0	92.7-119	%REC	1	01/20/09 13:13	
Surr: 1,2-Dichloroethane-d4	S	99.1	0	88.2-132	%REC	1	01/20/09 13:13	
Surr: Toluene-d8	S	100	0	89.3-116	%REC	1	01/20/09 13:13	

BOD, 5 DAY	Method: 5210B_18ED			Prep Date/Time: 01/15/09 22:00			Analyst: SMP	
Biochemical Oxygen Demand	A	ND	2.0	2.0	mg/L	1	01/15/09 00:00	
PH	Method: 4500H B/9040C			Prep Date/Time:			Analyst: SMA	
pH	A	7.50	0.02	0.02	H pH units	1	01/22/09 08:20	
TOTAL SUSPENDED SOLIDS	Method: 2540D_18ED			Prep Date/Time:			Analyst: TMG	
Total Suspended Solids	A	ND	1.0	1.0	mg/L	1	01/16/09 10:49	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664 *MW 20509*

**February 12, 2009 Compliance Sample  
Laboratory Results**

**ANALYTICAL RESULTS**

Date: Monday, February 23, 2009

**Client:** MWH, Inc.  
**Client Project:** GWTP - Monthly / ACS  
**Client Sample ID:** Effluent  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0902444-01  
**Collection Date:** 02/12/09 14:45  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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VOC'S	Method: SW8260B			Prep Date/Time:			Analyst: JLN	
Acetone	A	ND	0.0020	0.0050	UJ	mg/L	1	02/17/09 23:57
Benzene	A	ND	0.00030	0.0010		mg/L	1	02/17/09 23:57
2-Butanone	A	ND	0.0015	0.0020	UJ	mg/L	1	02/17/09 23:57
Chloromethane	A	ND	0.00030	0.0020	UJ	mg/L	1	02/17/09 23:57
1,1-Dichloroethane	A	0.0022	0.00030	0.0010		mg/L	1	02/17/09 23:57
cis-1,2-Dichloroethene	A	0.0056	0.00040	0.0010		mg/L	1	02/17/09 23:57
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	02/17/09 23:57
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	02/17/09 23:57
Methylene chloride	A	0.00094	0.00070	0.0020	J	mg/L	1	02/17/09 23:57
Tetrachloroethene	A	ND	0.00040	0.0010		mg/L	1	02/17/09 23:57
Trichloroethene	A	ND	0.00030	0.0010		mg/L	1	02/17/09 23:57
Vinyl chloride	A	0.00043	0.00040	0.0020	J	mg/L	1	02/17/09 23:57
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	02/17/09 23:57
Surr: 4-Bromofluorobenzene	S	98.0	0	75.2-115		%REC	1	02/17/09 23:57
Surr: Dibromofluoromethane	S	99.5	0	92.7-119		%REC	1	02/17/09 23:57
Surr: 1,2-Dichloroethane-d4	S	103	0	88.2-132		%REC	1	02/17/09 23:57
Surr: Toluene-d8	S	93.4	0	89.3-116		%REC	1	02/17/09 23:57

PH	Method: 4500H B/9040C			Prep Date/Time:			Analyst: SMA	
pH	A	7.03	0.02	0.02	H	pH units	1	02/13/09 08:45

**ANALYTICAL RESULTS**

Date: Monday, February 23, 2009

**Client:** MWH, Inc.  
**Client Project:** GWTP - Monthly / ACS  
**Client Sample ID:** Effluent  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0902444-01  
**Collection Date:** 02/12/09 14:45  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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VOC'S	Method: SW8260B				Prep Date/Time:		Analyst: JLN	
Acetone	A	ND	0.0020	0.0050		mg/L	1	02/17/09 23:57
Benzene	A	ND	0.00030	0.0010		mg/L	1	02/17/09 23:57
2-Butanone	A	ND	0.0015	0.0020		mg/L	1	02/17/09 23:57
Chloromethane	A	ND	0.00030	0.0020		mg/L	1	02/17/09 23:57
1,1-Dichloroethane	A	0.0022	0.00030	0.0010		mg/L	1	02/17/09 23:57
cis-1,2-Dichloroethene	A	0.0056	0.00040	0.0010		mg/L	1	02/17/09 23:57
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	02/17/09 23:57
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	02/17/09 23:57
Methylene chloride	A	0.00094	0.00070	0.0020	J	mg/L	1	02/17/09 23:57
Tetrachloroethylene	A	ND	0.00040	0.0010		mg/L	1	02/17/09 23:57
Trichloroethylene	A	ND	0.00030	0.0010		mg/L	1	02/17/09 23:57
Vinyl chloride	A	0.00043	0.00040	0.0020	J	mg/L	1	02/17/09 23:57
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	02/17/09 23:57
Surr: 4-Bromofluorobenzene	S	98.0	0	75.2-115		%REC	1	02/17/09 23:57
Surr: Dibromofluoromethane	S	99.5	0	92.7-119		%REC	1	02/17/09 23:57
Surr: 1,2-Dichloroethane-d4	S	103	0	88.2-132		%REC	1	02/17/09 23:57
Surr: Toluene-d8	S	93.4	0	89.3-116		%REC	1	02/17/09 23:57

PH	Method: 4500H B/9040C				Prep Date/Time:		Analyst: SMA	
pH	A	7.03	0.02	0.02	H	pH units	1	02/13/09 08:45



3/21/09

**March 5, 2009 Compliance Sample  
Laboratory Results**


  
**Microbac**
**ANALYTICAL RESULTS**

Date: Thursday, March 12, 2009

**Client:** MWH, Inc.  
**Client Project:** GWTP - Monthly / ACS  
**Client Sample ID:** Effluent-March 2009  
**Sample Description:**  
**Sample Matrix:** Aqueous

**Work Order / ID:** ME0903254-01  
**Collection Date:** 03/05/09 15:00  
**Date Received:** 03/05/09 15:42

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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VOC'S	Method: SW8260B			Prep Date/Time:			Analyst: NLT	
Acetone	A	ND	0.0020	0.0050	13	mg/L	1	03/11/09 12:03
Benzene	A	ND	0.00030	0.0010		mg/L	1	03/11/09 12:03
2-Butanone	A	ND	0.0015	0.0020	KJ	mg/L	1	03/11/09 12:03
Chloromethane	A	ND	0.00030	0.0020		mg/L	1	03/11/09 12:03
1,1-Dichloroethane	A	0.0022	0.00030	0.0010		mg/L	1	03/11/09 12:03
cis-1,2-Dichloroethene	A	0.010	0.00040	0.0010		mg/L	1	03/11/09 12:03
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	03/11/09 12:03
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	03/11/09 12:03
Methylene chloride	A	ND	0.00070	0.0020		mg/L	1	03/11/09 12:03
Tetrachloroethene	A	ND	0.00040	0.0010		mg/L	1	03/11/09 12:03
Trichloroethene	A	ND	0.00030	0.0010		mg/L	1	03/11/09 12:03
Vinyl chloride	A	0.00045	0.00040	0.0020	J	mg/L	1	03/11/09 12:03
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	03/11/09 12:03
Surr: 4-Bromofluorobenzene	S	99.3	0	75.2-115		%REC	1	03/11/09 12:03
Surr: Dibromofluoromethane	S	102	0	92.7-119		%REC	1	03/11/09 12:03
Surr: 1,2-Dichloroethane-d4	S	100	0	88.2-132		%REC	1	03/11/09 12:03
Surr: Toluene-d8	S	101	0	89.3-116		%REC	1	03/11/09 12:03

pH	Method: 4500H B/9040C			Prep Date/Time:			Analyst: SMA	
pH	A	7.01	0.02	0.02	H	pH units	1	03/11/09 15:27

1514109

**Microbac**

**ANALYTICAL RESULTS**

Date: Thursday, March 12, 2009

<b>Client:</b>	MWH, Inc.
<b>Client Project:</b>	GWTP - Monthly / ACS
<b>Client Sample ID:</b>	Effluent-March 2009
<b>Sample Description:</b>	
<b>Sample Matrix:</b>	Aqueous
	<b>Work Order / ID:</b> ME0903254-01
	<b>Collection Date:</b> 03/05/09 15:00
	<b>Date Received:</b> 03/05/09 15:42

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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VOC'S	Method: SW8260B			Prep Date/Time:			Analyst: NLT	
Acetone	A	ND	0.0020	0.0050		mg/L	1	03/11/09 12:03
Benzene	A	ND	0.00030	0.0010		mg/L	1	03/11/09 12:03
2-Butanone	A	ND	0.0015	0.0020		mg/L	1	03/11/09 12:03
Chloromethane	A	ND	0.00030	0.0020		mg/L	1	03/11/09 12:03
1,1-Dichloroethane	A	0.0022	0.00030	0.0010		mg/L	1	03/11/09 12:03
cis-1,2-Dichloroethene	A	0.010	0.00040	0.0010		mg/L	1	03/11/09 12:03
Ethylbenzene	A	ND	0.00020	0.0010		mg/L	1	03/11/09 12:03
4-Methyl-2-Pentanone	A	ND	0.00080	0.0010		mg/L	1	03/11/09 12:03
Methylene chloride	A	ND	0.00070	0.0020		mg/L	1	03/11/09 12:03
Tetrachloroethylene	A	ND	0.00040	0.0010		mg/L	1	03/11/09 12:03
Trichloroethylene	A	ND	0.00030	0.0010		mg/L	1	03/11/09 12:03
Vinyl chloride	A	0.00045	0.00040	0.0020	J	mg/L	1	03/11/09 12:03
1,4-Dichlorobenzene	A	ND	0.00020	0.0010		mg/L	1	03/11/09 12:03
Surr: 4-Bromofluorobenzene	S	99.3	0	75.2-115		%REC	1	03/11/09 12:03
Surr: Dibromofluoromethane	S	102	0	92.7-119		%REC	1	03/11/09 12:03
Surr: 1,2-Dichloroethane-d4	S	100	0	88.2-132		%REC	1	03/11/09 12:03
Surr: Toluene-d8	S	101	0	89.3-116		%REC	1	03/11/09 12:03

PH	Method: 4500H B/9040C			Prep Date/Time:			Analyst: SMA	
pH	A	7.01	0.02	0.02	H	pH units	1	03/11/09 15:27

5/4/09

**APPENDIX B**

**THERMAL OXIDIZER OFF-GAS ANALYTICAL DATA**

**January 29, 2009 Off-Gas Sample Laboratory Results**

## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-01A  
**Collection Date:** 01/29/09 09:27  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15		Prep Date/Time:		Analyst: MAK		
1,1,1-Trichloroethane	A	16000	450	1500	ppbv	,00	02/07/09 07:19	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/10/09 19:28	
1,1,2-Trichloroethane	A	70	10	30	ppbv	60	02/10/09 19:28	
1,1-Dichloroethane	A	1900	41	150	ppbv	300	02/07/09 02:11	
1,1-Dichloroethene	A	56	10	30	ppbv	60	02/10/09 19:28	
1,2-Dichloroethane	A	280	10	30	ppbv	60	02/10/09 19:28	
1,2-Dichloropropane	A	ND	8.4	30	ppbv	60	02/10/09 19:28	
2-Butanone	A	1800	35	590	ppbv	300	02/07/09 02:11	
2-Hexanone	A	ND	20	120	ppbv	60	02/10/09 19:28	
4-Methyl-2-Pentanone	A	610	14	30	ppbv	60	02/10/09 19:28	
Acetone	A	2300	160	590	ppbv	300	02/07/09 02:11	
Benzene	A	3600	35	150	ppbv	300	02/07/09 02:11	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/10/09 19:28	
Bromoform	A	ND	10	30	ppbv	60	02/10/09 19:28	
Bromomethane	A	ND	11	30	ppbv	60	02/10/09 19:28	
Carbon disulfide	A	ND	11	30	ppbv	60	02/10/09 19:28	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/10/09 19:28	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/10/09 19:28	
Chloroethane	A	130	10	30	ppbv	60	02/10/09 19:28	
Chloroform	A	930	7.2	30	ppbv	60	02/10/09 19:28	
Chloromethane	A	ND	14	120	ppbv	60	02/10/09 19:28	
cis-1,2-Dichloroethene	A	2900	41	150	ppbv	300	02/07/09 02:11	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/10/09 19:28	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/10/09 19:28	
Ethyl benzene	A	2900	53	150	ppbv	300	02/07/09 02:11	
m,p-Xylene	A	22000	900	3000	ppbv	,00	02/07/09 07:19	
Methylene chloride	A	16000	420	12000	ppbv	,00	02/07/09 07:19	
o-Xylene	A	4800	50	150	ppbv	300	02/07/09 02:11	
Styrene	A	130	11	30	ppbv	60	02/10/09 19:28	
Tetrachloroethene	A	5700	50	150	ppbv	300	02/07/09 02:11	
Toluene	A	39000	540	1500	ppbv	,00	02/07/09 07:19	
trans-1,2-Dichloroethene	A	20	19	30	J	ppbv	60	02/10/09 19:28
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/10/09 19:28	
Trichloroethene	A	5300	47	150	ppbv	300	02/07/09 02:11	
Vinyl chloride	A	330	9	30	ppbv	60	02/10/09 19:28	
Surr: 4-Bromofluorobenzene	S	103	0	77.7-127	%REC	60	02/10/09 19:28	

## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-02A  
**Collection Date:** 01/29/09 09:30  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS	Method:	TO-15			Prep Date/Time:		Analyst:	MAK
1,1,1-Trichloroethane	A	15000	450	1500	ppbv	1,00	02/07/09 06:40	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/10/09 20:09	
1,1,2-Trichloroethane	A	16	10	30	J	ppbv	60	02/10/09 20:09
1,1-Dichloroethane	A	1800	42	150	ppbv	300	02/07/09 01:26	
1,1-Dichloroethene	A	110	10	30	ppbv	60	02/10/09 20:09	
1,2-Dichloroethane	A	120	10	30	ppbv	60	02/10/09 20:09	
1,2-Dichloropropane	A	100	8.4	30	ppbv	60	02/10/09 20:09	
2-Butanone	A	35	7.2	120	J	ppbv	60	02/10/09 20:09
2-Hexanone	A	ND	20	120	ppbv	60	02/10/09 20:09	
4-Methyl-2-Pentanone	A	ND	14	30	ppbv	60	02/10/09 20:09	
Acetone	A	180	34	120	ppbv	60	02/10/09 20:09	
Benzene	A	1400	36	150	ppbv	300	02/07/09 01:26	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/10/09 20:09	
Bromoform	A	ND	10	30	ppbv	60	02/10/09 20:09	
Bromomethane	A	ND	11	30	ppbv	60	02/10/09 20:09	
Carbon disulfide	A	ND	11	30	ppbv	60	02/10/09 20:09	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/10/09 20:09	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/10/09 20:09	
Chloroethane	A	370	10	30	ppbv	60	02/10/09 20:09	
Chloroform	A	2100	36	150	ppbv	300	02/07/09 01:26	
Chloromethane	A	ND	14	120	ppbv	60	02/10/09 20:09	
cis-1,2-Dichloroethene	A	19000	420	1500	ppbv	1,00	02/07/09 06:40	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/10/09 20:09	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/10/09 20:09	
Ethyl benzene	A	1500	54	150	ppbv	300	02/07/09 01:26	
m,p-Xylene	A	6200	90	300	ppbv	300	02/07/09 01:26	
Methylene chloride	A	4800	42	1200	ppbv	300	02/07/09 01:26	
o-Xylene	A	2900	51	150	ppbv	300	02/07/09 01:26	
Styrene	A	ND	11	30	ppbv	60	02/10/09 20:09	
Tetrachloroethene	A	15000	510	1500	ppbv	1,00	02/07/09 06:40	
Toluene	A	12000	540	1500	ppbv	1,00	02/07/09 06:40	
trans-1,2-Dichloroethene	A	80	19	30	ppbv	60	02/10/09 20:09	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/10/09 20:09	
Trichloroethene	A	5600	48	150	ppbv	300	02/07/09 01:26	
Vinyl chloride	A	2800	45	150	ppbv	300	02/07/09 01:26	
Surr: 4-Bromofluorobenzene	S	98.1	0	77.7-127	%REC	60	02/10/09 20:09	

4404-109

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-03A  
**Collection Date:** 01/29/09 09:42  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	14000	410	1400	ppbv	,00	02/10/09 14:40	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/10/09 16:42	
1,1,2-Trichloroethane	A	18	10	30	J	ppbv	60	02/10/09 16:42
1,1-Dichloroethane	A	1900	42	150	ppbv	300	02/10/09 15:20	
1,1-Dichloroethene	A	120	10	30	ppbv	60	02/10/09 16:42	
1,2-Dichloroethane	A	150	10	30	ppbv	60	02/10/09 16:42	
1,2-Dichloropropane	A	110	8.4	30	ppbv	60	02/10/09 16:42	
2-Butanone	A	130	7.2	120	ppbv	60	02/10/09 16:42	
2-Hexanone	A	ND	20	120	ppbv	60	02/10/09 16:42	
4-Methyl-2-Pentanone	A	70	14	30	ppbv	60	02/10/09 16:42	
Acetone	A	400	34	120	ppbv	60	02/10/09 16:42	
Benzene	A	1400	36	150	ppbv	300	02/10/09 15:20	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/10/09 16:42	
Bromoform	A	ND	10	30	ppbv	60	02/10/09 16:42	
Bromomethane	A	ND	11	30	ppbv	60	02/10/09 16:42	
Carbon disulfide	A	ND	11	30	ppbv	60	02/10/09 16:42	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/10/09 16:42	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/10/09 16:42	
Chloroethane	A	350	10	30	ppbv	60	02/10/09 16:42	
Chloroform	A	2300	36	150	ppbv	300	02/10/09 15:20	
Chloromethane	A	ND	14	120	ppbv	60	02/10/09 16:42	
cis-1,2-Dichloroethene	A	16000	380	1400	ppbv	,00	02/10/09 14:40	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/10/09 16:42	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/10/09 16:42	
Ethyl benzene	A	1700	53	150	ppbv	300	02/10/09 15:20	
m,p-Xylene	A	7100	89	300	ppbv	300	02/10/09 15:20	
Methylene chloride	A	4600	42	1200	ppbv	300	02/10/09 15:20	
o-Xylene	A	3500	50	150	ppbv	300	02/10/09 15:20	
Styrene	A	17	11	30	J	ppbv	60	02/10/09 16:42
Tetrachloroethene	A	14000	460	1400	ppbv	,00	02/10/09 14:40	
Toluene	A	15000	490	1400	ppbv	,00	02/10/09 14:40	
trans-1,2-Dichloroethene	A	90	19	30	ppbv	60	02/10/09 16:42	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/10/09 16:42	
Trichloroethene	A	5700	48	150	ppbv	300	02/10/09 15:20	
Vinyl chloride	A	2800	45	150	ppbv	300	02/10/09 15:20	
Surr: 4-Bromofluorobenzene	S	99.2	0	77.7-127	%REC	60	02/10/09 16:42	

1424019

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-04A  
**Collection Date:** 01/29/09 10:40  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	14000	410	1400	ppbv	,00	02/07/09 05:59	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/10/09 17:24	
1,1,2-Trichloroethane	A	17	10	30	J ppbv	60	02/10/09 17:24	
1,1-Dichloroethane	A	1900	42	150	ppbv	300	02/07/09 00:40	
1,1-Dichloroethene	A	130	10	30	ppbv	60	02/10/09 17:24	
1,2-Dichloroethane	A	150	10	30	ppbv	60	02/10/09 17:24	
1,2-Dichloropropane	A	100	8.4	30	ppbv	60	02/10/09 17:24	
2-Butanone	A	90	7.2	120	J ppbv	60	02/10/09 17:24	
2-Hexanone	A	ND	20	120	ppbv	60	02/10/09 17:24	
4-Methyl-2-Pentanone	A	56	14	30	ppbv	60	02/10/09 17:24	
Acetone	A	290	34	120	ppbv	60	02/10/09 17:24	
Benzene	A	1400	36	150	ppbv	300	02/07/09 00:40	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/10/09 17:24	
Bromoform	A	ND	10	30	ppbv	60	02/10/09 17:24	
Bromomethane	A	ND	11	30	ppbv	60	02/10/09 17:24	
Carbon disulfide	A	ND	11	30	ppbv	60	02/10/09 17:24	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/10/09 17:24	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/10/09 17:24	
Chloroethane	A	360	10	30	ppbv	60	02/10/09 17:24	
Chloroform	A	2200	36	150	ppbv	300	02/07/09 00:40	
Chloromethane	A	ND	14	120	ppbv	60	02/10/09 17:24	
cis-1,2-Dichloroethene	A	18000	380	1400	ppbv	,00	02/07/09 05:59	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/10/09 17:24	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/10/09 17:24	
Ethyl benzene	A	1700	53	150	ppbv	300	02/07/09 00:40	
m,p-Xylene	A	7000	89	300	ppbv	300	02/07/09 00:40	
Methylene chloride	A	4700	42	1200	ppbv	300	02/07/09 00:40	
o-Xylene	A	3400	50	150	ppbv	300	02/07/09 00:40	
Styrene	A	22	11	30	J ppbv	60	02/10/09 17:24	
Tetrachloroethene	A	14000	460	1400	ppbv	,00	02/07/09 05:59	
Toluene	A	12000	490	1400	ppbv	,00	02/07/09 05:59	
trans-1,2-Dichloroethene	A	91	19	30	ppbv	60	02/10/09 17:24	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/10/09 17:24	
Trichloroethene	A	5600	48	150	ppbv	300	02/07/09 00:40	
Vinyl chloride	A	2900	45	150	ppbv	300	02/07/09 00:40	
Surr: 4-Bromofluorobenzene	S	98.2	0	77.7-127	%REC	60	02/10/09 17:24	

M4-4019

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-05A  
**Collection Date:** 01/29/09 09:50  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	47	0.75	2.5	ppbv	5	02/06/09 22:27	
1,1,2,2-Tetrachloroethane	A	ND	0.22	0.50	ppbv	1	02/10/09 16:01	
1,1,2-Trichloroethane	A	0.60	0.17	0.50	ppbv	1	02/10/09 16:01	
1,1-Dichloroethane	A	17	0.14	0.50	ppbv	1	02/10/09 16:01	
1,1-Dichloroethene	A	24	0.85	2.5	ppbv	5	02/06/09 22:27	
1,2-Dichloroethane	A	3.0	0.17	0.50	ppbv	1	02/10/09 16:01	
1,2-Dichloropropane	A	ND	0.14	0.50	ppbv	1	02/10/09 16:01	
2-Butanone	A	12	0.12	2.0	ppbv	1	02/10/09 16:01	
2-Hexanone	A	ND	0.34	2.0	ppbv	1	02/10/09 16:01	
4-Methyl-2-Pentanone	A	5.8	0.24	0.50	ppbv	1	02/10/09 16:01	
Acetone	A	18	2.8	10	ppbv	5	02/06/09 22:27	
Benzene	A	34	0.6	2.5	ppbv	5	02/06/09 22:27	
Bromodichloromethane	A	ND	0.15	0.50	ppbv	1	02/10/09 16:01	
Bromoform	A	ND	0.17	0.50	ppbv	1	02/10/09 16:01	
Bromomethane	A	ND	0.19	0.50	ppbv	1	02/10/09 16:01	
Carbon disulfide	A	ND	0.18	0.50	ppbv	1	02/10/09 16:01	
Carbon tetrachloride	A	ND	0.16	0.50	ppbv	1	02/10/09 16:01	
Chlorobenzene	A	ND	0.16	0.50	ppbv	1	02/10/09 16:01	
Chloroethane	A	4.9	0.17	0.50	ppbv	1	02/10/09 16:01	
Chloroform	A	14	0.12	0.50	ppbv	1	02/10/09 16:01	
Chloromethane	A	3.1	0.23	2.0	ppbv	1	02/10/09 16:01	
cis-1,2-Dichloroethene	A	66	0.7	2.5	ppbv	5	02/06/09 22:27	
cis-1,3-Dichloropropene	A	ND	0.14	0.50	ppbv	1	02/10/09 16:01	
Dibromochloromethane	A	ND	0.17	0.50	ppbv	1	02/10/09 16:01	
Ethyl benzene	A	14	0.9	2.5	ppbv	5	02/06/09 22:27	
m,p-Xylene	A	56	1.5	5.0	ppbv	5	02/06/09 22:27	
Methylene chloride	A	55	0.7	20	ppbv	5	02/06/09 22:27	
o-Xylene	A	24	0.85	2.5	ppbv	5	02/06/09 22:27	
Styrene	A	12	0.19	0.50	ppbv	1	02/10/09 16:01	
Tetrachloroethene	A	87	0.85	2.5	ppbv	5	02/06/09 22:27	
Toluene	A	92	0.9	2.5	ppbv	5	02/06/09 22:27	
trans-1,2-Dichloroethene	A	17	0.31	0.50	ppbv	1	02/10/09 16:01	
trans-1,3-Dichloropropene	A	ND	0.12	0.50	ppbv	1	02/10/09 16:01	
Trichloroethene	A	55	0.8	2.5	ppbv	5	02/06/09 22:27	
Vinyl chloride	A	30	0.75	2.5	ppbv	5	02/06/09 22:27	
Surr: 4-Bromofluorobenzene	S	95.9	0	77.7-127	%REC	1	02/10/09 16:01	

14040109

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-06A  
**Collection Date:** 01/29/09 11:30  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	10000	450	1500	ppbv	,00	02/07/09 04:30	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/10/09 18:05	
1,1,2-Trichloroethane	A	47	10	30	ppbv	60	02/10/09 18:05	
1,1-Dichloroethane	A	1400	42	150	ppbv	300	02/06/09 23:11	
1,1-Dichloroethene	A	38	10	30	ppbv	60	02/10/09 18:05	
1,2-Dichloroethane	A	190	10	30	ppbv	60	02/10/09 18:05	
1,2-Dichloropropane	A	ND	8.4	30	ppbv	60	02/10/09 18:05	
2-Butanone	A	1100	7.2	120	ppbv	60	02/10/09 18:05	
2-Hexanone	A	ND	20	120	ppbv	60	02/10/09 18:05	
4-Methyl-2-Pentanone	A	250	14	30	ppbv	60	02/10/09 18:05	
Acetone	A	1800	170	600	ppbv	300	02/06/09 23:11	UB
Benzene	A	3100	36	150	ppbv	300	02/06/09 23:11	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/10/09 18:05	
Bromoform	A	ND	10	30	ppbv	60	02/10/09 18:05	
Bromomethane	A	ND	11	30	ppbv	60	02/10/09 18:05	
Carbon disulfide	A	ND	11	30	ppbv	60	02/10/09 18:05	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/10/09 18:05	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/10/09 18:05	
Chloroethane	A	420	10	30	ppbv	60	02/10/09 18:05	
Chloroform	A	710	7.2	30	ppbv	60	02/10/09 18:05	
Chloromethane	A	ND	14	120	ppbv	60	02/10/09 18:05	
cis-1,2-Dichloroethene	A	1200	42	150	ppbv	300	02/06/09 23:11	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/10/09 18:05	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/10/09 18:05	
Ethyl benzene	A	2300	54	150	ppbv	300	02/06/09 23:11	
m,p-Xylene	A	9700	90	300	ppbv	300	02/06/09 23:11	
Methylene chloride	A	10000	420	9000	ppbv	,00	02/07/09 04:30	
o-Xylene	A	3800	51	150	ppbv	300	02/06/09 23:11	
Styrene	A	77	11	30	ppbv	60	02/10/09 18:05	
Tetrachloroethene	A	4000	51	150	ppbv	300	02/06/09 23:11	
Toluene	A	27000	540	1500	ppbv	,00	02/07/09 04:30	
trans-1,2-Dichloroethene	A	ND	19	30	ppbv	60	02/10/09 18:05	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/10/09 18:05	
Trichloroethene	A	3800	48	150	ppbv	300	02/06/09 23:11	
Vinyl chloride	A	370	9	30	ppbv	60	02/10/09 18:05	
Surr: 4-Bromofluorobenzene	S	97.8	0	77.7-127	%REC	60	02/10/09 18:05	

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-07A  
**Collection Date:** 01/29/09 11:55  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS	Method:	TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	12000	410	1400	ppbv	,00	02/07/09 05:17	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/10/09 18:47	
1,1,2-Trichloroethane	A	53	10	30	ppbv	60	02/10/09 18:47	
1,1-Dichloroethane	A	1700	42	150	ppbv	300	02/06/09 23:55	
1,1-Dichloroethene	A	52	10	30	ppbv	60	02/10/09 18:47	
1,2-Dichloroethane	A	230	10	30	ppbv	60	02/10/09 18:47	
1,2-Dichloropropane	A	ND	8.4	30	ppbv	60	02/10/09 18:47	
2-Butanone	A	1600	36	590	ppbv	300	02/06/09 23:55	
2-Hexanone	A	ND	20	120	ppbv	60	02/10/09 18:47	
4-Methyl-2-Pentanone	A	310	14	30	ppbv	60	02/10/09 18:47	
Acetone	A	2100	170	590	ppbv	300	02/06/09 23:55	
Benzene	A	3600	36	150	ppbv	300	02/06/09 23:55	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/10/09 18:47	
Bromoform	A	ND	10	30	ppbv	60	02/10/09 18:47	
Bromomethane	A	ND	11	30	ppbv	60	02/10/09 18:47	
Carbon disulfide	A	ND	11	30	ppbv	60	02/10/09 18:47	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/10/09 18:47	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/10/09 18:47	
Chloroethane	A	550	10	30	ppbv	60	02/10/09 18:47	
Chloroform	A	870	7.2	30	ppbv	60	02/10/09 18:47	
Chloromethane	A	ND	14	120	ppbv	60	02/10/09 18:47	
cis-1,2-Dichloroethene	A	1800	42	150	ppbv	300	02/06/09 23:55	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/10/09 18:47	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/10/09 18:47	
Ethyl benzene	A	2700	53	150	ppbv	300	02/06/09 23:55	
m,p-Xylene	A	11000	89	300	ppbv	300	02/06/09 23:55	
Methylene chloride	A	13000	380	11000	ppbv	,00	02/07/09 05:17	
o-Xylene	A	4600	50	150	ppbv	300	02/06/09 23:55	
Styrene	A	68	11	30	ppbv	60	02/10/09 18:47	
Tetrachloroethene	A	4700	50	150	ppbv	300	02/06/09 23:55	
Toluene	A	31000	490	1400	ppbv	,00	02/07/09 05:17	
trans-1,2-Dichloroethene	A	26	19	30	J	ppbv	60	02/10/09 18:47
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/10/09 18:47	
Trichloroethene	A	4500	48	150	ppbv	300	02/06/09 23:55	
Vinyl chloride	A	550	9	30	ppbv	60	02/10/09 18:47	
Surr: 4-Bromofluorobenzene	S	98.6	0	77.7-127	%REC	60	02/10/09 18:47	

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-08A  
**Collection Date:** 01/29/09 11:40  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	150	7.5	25	ppbv	50	02/07/09 02:57	
1,1,2,2-Tetrachloroethane	A	ND	0.22	0.50	ppbv	1	02/07/09 08:00	
1,1,2-Trichloroethane	A	4.6	0.17	0.50	ppbv	1	02/07/09 08:00	
1,1-Dichloroethane	A	50	0.69	2.4	ppbv	5	02/06/09 21:45	
1,1-Dichloroethene	A	830	8.5	25	ppbv	50	02/07/09 02:57	
1,2-Dichloroethane	A	16	0.17	0.50	ppbv	1	02/07/09 08:00	
1,2-Dichloropropane	A	1.9	0.14	0.50	ppbv	1	02/07/09 08:00	
2-Butanone	A	41	0.59	9.8	ppbv	5	02/06/09 21:45	
2-Hexanone	A	ND	0.34	2.0	ppbv	1	02/07/09 08:00	
4-Methyl-2-Pentanone	A	28	1.2	2.4	ppbv	5	02/06/09 21:45	
Acetone	A	71	2.7	9.8	ppbv	5	02/06/09 21:45	
Benzene	A	550	6	25	ppbv	50	02/07/09 02:57	
Bromodichloromethane	A	ND	0.15	0.50	ppbv	1	02/07/09 08:00	
Bromoform	A	ND	0.17	0.50	ppbv	1	02/07/09 08:00	
Bromomethane	A	0.81	0.19	0.50	ppbv	1	02/07/09 08:00	
Carbon disulfide	A	ND	0.18	0.50	ppbv	1	02/07/09 08:00	
Carbon tetrachloride	A	ND	0.16	0.50	ppbv	1	02/07/09 08:00	
Chlorobenzene	A	ND	0.16	0.50	ppbv	1	02/07/09 08:00	
Chloroethane	A	20	0.17	0.50	ppbv	1	02/07/09 08:00	
Chloroform	A	32	0.59	2.4	ppbv	5	02/06/09 21:45	
Chloromethane	A	23	1.1	9.8	ppbv	5	02/06/09 21:45	
cis-1,2-Dichloroethene	A	97	0.69	2.4	ppbv	5	02/06/09 21:45	
cis-1,3-Dichloropropene	A	ND	0.14	0.50	ppbv	1	02/07/09 08:00	
Dibromochloromethane	A	ND	0.17	0.50	ppbv	1	02/07/09 08:00	
Ethyl benzene	A	130	9	25	ppbv	50	02/07/09 02:57	
m,p-Xylene	A	500	15	50	ppbv	50	02/07/09 02:57	
Methylene chloride	A	790	7	200	ppbv	50	02/07/09 02:57	
o-Xylene	A	190	8.5	25	ppbv	50	02/07/09 02:57	
Styrene	A	100	9.5	25	ppbv	50	02/07/09 02:57	
Tetrachloroethene	A	540	8.5	25	ppbv	50	02/07/09 02:57	
Toluene	A	1200	18	50	ppbv	100	02/10/09 22:13	
trans-1,2-Dichloroethene	A	25	1.5	2.4	ppbv	5	02/06/09 21:45	
trans-1,3-Dichloropropene	A	ND	0.12	0.50	ppbv	1	02/07/09 08:00	
Trichloroethene	A	400	8	25	ppbv	50	02/07/09 02:57	
Vinyl chloride	A	190	7.5	25	ppbv	50	02/07/09 02:57	
Surr: 4-Bromofluorobenzene	S	101	0	77.7-127	%REC	1	02/07/09 08:00	



## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-01B  
**Collection Date:** 01/29/09 09:27  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
					Prep Date/Time: 02/03/09 10:35	Analyst: BEM		
1,2,4-Trichlorobenzene	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
1,2-Dichlorobenzene	A	1.4	0.7	10	J μg, Total	1	02/04/09 20:07	
1,3-Dichlorobenzene	A	ND	0.8	10	μg, Total	1	02/04/09 20:07	
1,4-Dichlorobenzene	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
2,4,5-Trichlorophenol	A	ND	1.5	10	μg, Total	1	02/04/09 20:07	
2,4,6-Trichlorophenol	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
2,4-Dichlorophenol	A	ND	0.7	10	μg, Total	1	02/04/09 20:07	
2,4-Dimethylphenol	A	ND	0.8	10	μg, Total	1	02/04/09 20:07	
2,4-Dinitrophenol	A	ND	9.4	50	μg, Total	1	02/04/09 20:07	
2,4-Dinitrotoluene	A	ND	0.8	10	μg, Total	1	02/04/09 20:07	
2,6-Dinitrotoluene	A	ND	1.1	10	μg, Total	1	02/04/09 20:07	
2-Chloronaphthalene	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
2-Chlorophenol	A	ND	0.7	10	μg, Total	1	02/04/09 20:07	
2-Methylnaphthalene	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
2-Methylphenol	A	ND	0.7	10	μg, Total	1	02/04/09 20:07	
2-Nitroaniline	A	ND	1	50	μg, Total	1	02/04/09 20:07	
2-Nitrophenol	A	ND	1	10	μg, Total	1	02/04/09 20:07	
3,3'-Dichlorobenzidine	A	ND	0.7	50	μg, Total	1	02/04/09 20:07	
3-Nitroaniline	A	ND	1.3	50	μg, Total	1	02/04/09 20:07	
3/4-Methylphenol	A	ND	0.8	10	μg, Total	1	02/04/09 20:07	
4,6-Dinitro-2-methylphenol	A	ND	1.1	50	μg, Total	1	02/04/09 20:07	
4-Bromophenyl phenyl ether	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
4-Chloro-3-methylphenol	A	ND	1.2	20	μg, Total	1	02/04/09 20:07	
4-Chloroaniline	A	ND	1	20	μg, Total	1	02/04/09 20:07	
4-Chlorophenyl phenyl ether	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
4-Nitroaniline	A	ND	1.7	50	μg, Total	1	02/04/09 20:07	
4-Nitrophenol	A	ND	4.3	50	μg, Total	1	02/04/09 20:07	
Bis(2-chloroethoxy)methane	A	ND	1	10	μg, Total	1	02/04/09 20:07	
Bis(2-chloroethyl)ether	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
Bis(2-chloroisopropyl)ether	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
Bis(2-ethylhexyl)phthalate	A	3.6	1.1	10	J μg, Total	1	02/04/09 20:07	
Butyl benzyl phthalate	A	ND	1	10	μg, Total	1	02/04/09 20:07	
Carbazole	A	ND	1.2	10	μg, Total	1	02/04/09 20:07	
Di-n-butyl phthalate	A	ND	1.2	10	μg, Total	1	02/04/09 20:07	
Di-n-octyl phthalate	A	ND	1.1	10	μg, Total	1	02/04/09 20:07	
Dibenzofuran	A	ND	0.8	10	μg, Total	1	02/04/09 20:07	
Diethyl phthalate	A	ND	1.1	10	μg, Total	1	02/04/09 20:07	
Dimethyl phthalate	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	
Hexachlorobenzene	A	ND	0.9	10	μg, Total	1	02/04/09 20:07	

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## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-01B  
**Collection Date:** 01/29/09 09:27  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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<b>SEMI-VOLATILE ORGANIC ANALYTE</b>		Method: TO-13MOD Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/04/09 20:07
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/04/09 20:07
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/04/09 20:07
Isophorone	A	1.4	1	10	J	µg, Total	1	02/04/09 20:07
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/04/09 20:07
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/04/09 20:07
Nitrobenzene	A	ND	1	10		µg, Total	1	02/04/09 20:07
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/04/09 20:07
Phenol	A	ND	0.4	10		µg, Total	1	02/04/09 20:07
Surr: 2,4,6-Tribromophenol	S	77.2	0	39.4-112		%REC	1	02/04/09 20:07
Surr: 2-Fluorobiphenyl	S	63.2	0	21.6-123		%REC	1	02/04/09 20:07
Surr: 2-Fluorophenol	S	43.8	0	27.7-78		%REC	1	02/04/09 20:07
Surr: Nitrobenzene-d5	S	58.2	0	36.9-89.6		%REC	1	02/04/09 20:07
Surr: Phenol-d5	S	57.0	0	46.1-73.5		%REC	1	02/04/09 20:07
Surr: Terphenyl-d14	S	81.9	0	55.8-111		%REC	1	02/04/09 20:07

<b>PAHS BY GC/MS-SIM</b>		Method: TO-13 Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/07/09 01:01
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/07/09 01:01
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/07/09 01:01
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/07/09 01:01
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/07/09 01:01
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/07/09 01:01
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/07/09 01:01
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/07/09 01:01
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/07/09 01:01
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/07/09 01:01
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/07/09 01:01
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/07/09 01:01
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/07/09 01:01
Naphthalene	A	3.8	0.16	1.0		µg, Total	1	02/07/09 01:01
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/07/09 01:01
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/07/09 01:01
Surr: Nitrobenzene-d5	S	61.3	0	36.9-89.6		%REC	1	02/07/09 01:01
Surr: 2-Fluorobiphenyl	S	67.5	0	21.6-123		%REC	1	02/07/09 01:01
Surr: Terphenyl-d14	S	73.6	0	55.8-111		%REC	1	02/07/09 01:01

M4040109

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-02B  
**Collection Date:** 01/29/09 09:30  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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<b>SEMI-VOLATILE ORGANIC ANALYTE</b>		Method: TO-13MOD						
		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
1,2,4-Trichlorobenzene		A	2.6	0.7	10	J µg, Total	1	02/04/09 20:26
1,2-Dichlorobenzene		A	ND	0.8	10	µg, Total	1	02/04/09 20:26
1,3-Dichlorobenzene		A	0.95	0.9	10	J µg, Total	1	02/04/09 20:26
1,4-Dichlorobenzene		A	ND	1.5	10	µg, Total	1	02/04/09 20:26
2,4,5-Trichlorophenol		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
2,4,6-Trichlorophenol		A	ND	0.8	10	µg, Total	1	02/04/09 20:26
2,4-Dichlorophenol		A	ND	0.7	10	µg, Total	1	02/04/09 20:26
2,4-Dimethylphenol		A	ND	0.8	10	µg, Total	1	02/04/09 20:26
2,4-Dinitrophenol		A	ND	9.4	50	µg, Total	1	02/04/09 20:26
2,4-Dinitrotoluene		A	ND	0.8	10	µg, Total	1	02/04/09 20:26
2,6-Dinitrotoluene		A	ND	1.1	10	µg, Total	1	02/04/09 20:26
2-Chloronaphthalene		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
2-Chlorophenol		A	ND	0.7	10	µg, Total	1	02/04/09 20:26
2-Methylnaphthalene		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
2-Methylphenol		A	ND	0.7	10	µg, Total	1	02/04/09 20:26
2-Nitroaniline		A	ND	1	50	µg, Total	1	02/04/09 20:26
2-Nitrophenol		A	ND	1	10	µg, Total	1	02/04/09 20:26
3,3'-Dichlorobenzidine		A	ND	0.7	50	µg, Total	1	02/04/09 20:26
3-Nitroaniline		A	ND	1.3	50	µg, Total	1	02/04/09 20:26
3/4-Methylphenol		A	ND	0.8	10	µg, Total	1	02/04/09 20:26
4,6-Dinitro-2-methylphenol		A	ND	1.1	50	µg, Total	1	02/04/09 20:26
4-Bromophenyl phenyl ether		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
4-Chloro-3-methylphenol		A	ND	1.2	20	µg, Total	1	02/04/09 20:26
4-Chloroaniline		A	ND	1	20	µg, Total	1	02/04/09 20:26
4-Chlorophenyl phenyl ether		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
4-Nitroaniline		A	ND	1.7	50	µg, Total	1	02/04/09 20:26
4-Nitrophenol		A	ND	4.3	50	µg, Total	1	02/04/09 20:26
Bis(2-chloroethoxy)methane		A	ND	1	10	µg, Total	1	02/04/09 20:26
Bis(2-chloroethyl)ether		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
Bis(2-chloroisopropyl)ether		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
Bis(2-ethylhexyl)phthalate		A	2.8	1.1	10	J µg, Total	1	02/04/09 20:26
Butyl benzyl phthalate		A	ND	1	10	µg, Total	1	02/04/09 20:26
Carbazole		A	ND	1.2	10	µg, Total	1	02/04/09 20:26
Di-n-butyl phthalate		A	ND	1.2	10	µg, Total	1	02/04/09 20:26
Di-n-octyl phthalate		A	ND	1.1	10	µg, Total	1	02/04/09 20:26
Dibenzofuran		A	ND	0.8	10	µg, Total	1	02/04/09 20:26
Diethyl phthalate		A	ND	1.1	10	µg, Total	1	02/04/09 20:26
Dimethyl phthalate		A	ND	0.9	10	µg, Total	1	02/04/09 20:26
Hexachlorobenzene		A	ND	0.9	10	µg, Total	1	02/04/09 20:26

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M10409

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-02B  
**Collection Date:** 01/29/09 09:30  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Hexachlorobutadiene	A	1	0.9	10	J	µg, Total	1	02/04/09 20:26
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/04/09 20:26
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/04/09 20:26
Isophorone	A	ND	1	10		µg, Total	1	02/04/09 20:26
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/04/09 20:26
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/04/09 20:26
Nitrobenzene	A	ND	1	10		µg, Total	1	02/04/09 20:26
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/04/09 20:26
Phenol	A	ND	0.4	10		µg, Total	1	02/04/09 20:26
<i>Surr: 2,4,6-Tribromophenol</i>	S	69.1	0	39.4-112		%REC	1	02/04/09 20:26
<i>Surr: 2-Fluorobiphenyl</i>	S	54.8	0	21.6-123		%REC	1	02/04/09 20:26
<i>Surr: 2-Fluorophenol</i>	S	38.8	0	27.7-78		%REC	1	02/04/09 20:26
<i>Surr: Nitrobenzene-d5</i>	S	53.7	0	36.9-89.6		%REC	1	02/04/09 20:26
<i>Surr: Phenol-d5</i>	S	51.3	0	46.1-73.5		%REC	1	02/04/09 20:26
<i>Surr: Terphenyl-d14</i>	S	76.0	0	55.8-111		%REC	1	02/04/09 20:26

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/07/09 01:27
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/07/09 01:27
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/07/09 01:27
Benz[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/07/09 01:27
Benz[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/07/09 01:27
Benz[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/07/09 01:27
Benz[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/07/09 01:27
Benz[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/07/09 01:27
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/07/09 01:27
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/07/09 01:27
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/07/09 01:27
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/07/09 01:27
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/07/09 01:27
Naphthalene	A	1.2	0.16	1.0		µg, Total	1	02/07/09 01:27
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/07/09 01:27
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/07/09 01:27
<i>Surr: Nitrobenzene-d5</i>	S	53.1	0	36.9-89.6		%REC	1	02/07/09 01:27
<i>Surr: 2-Fluorobiphenyl</i>	S	61.4	0	21.6-123		%REC	1	02/07/09 01:27
<i>Surr: Terphenyl-d14</i>	S	68.3	0	55.8-111		%REC	1	02/07/09 01:27

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-03B  
**Collection Date:** 01/29/09 09:42  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE	Method:	Prep Date/Time: 02/03/09 10:35 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
1,2-Dichlorobenzene	A	ND	0.7	10	ug, Total	1	02/04/09 20:44
1,3-Dichlorobenzene	A	ND	0.8	10	ug, Total	1	02/04/09 20:44
1,4-Dichlorobenzene	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
2,4,5-Trichlorophenol	A	ND	1.5	10	ug, Total	1	02/04/09 20:44
2,4,6-Trichlorophenol	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
2,4-Dichlorophenol	A	ND	0.7	10	ug, Total	1	02/04/09 20:44
2,4-Dimethylphenol	A	ND	0.8	10	ug, Total	1	02/04/09 20:44
2,4-Dinitrophenol	A	ND	9.4	50	ug, Total	1	02/04/09 20:44
2,4-Dinitrotoluene	A	ND	0.8	10	ug, Total	1	02/04/09 20:44
2,6-Dinitrotoluene	A	ND	1.1	10	ug, Total	1	02/04/09 20:44
2-Chloronaphthalene	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
2-Chlorophenol	A	ND	0.7	10	ug, Total	1	02/04/09 20:44
2-Methylnaphthalene	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
2-Methylphenol	A	ND	0.7	10	ug, Total	1	02/04/09 20:44
2-Nitroaniline	A	ND	1	50	ug, Total	1	02/04/09 20:44
2-Nitrophenol	A	ND	1	10	ug, Total	1	02/04/09 20:44
3,3'-Dichlorobenzidine	A	ND	0.7	50	ug, Total	1	02/04/09 20:44
3-Nitroaniline	A	ND	1.3	50	ug, Total	1	02/04/09 20:44
3/4-Methylphenol	A	ND	0.8	10	ug, Total	1	02/04/09 20:44
4,6-Dinitro-2-methylphenol	A	ND	1.1	50	ug, Total	1	02/04/09 20:44
4-Bromophenyl phenyl ether	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
4-Chloro-3-methylphenol	A	ND	1.2	20	ug, Total	1	02/04/09 20:44
4-Chloroaniline	A	ND	1	20	ug, Total	1	02/04/09 20:44
4-Chlorophenyl phenyl ether	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
4-Nitroaniline	A	ND	1.7	50	ug, Total	1	02/04/09 20:44
4-Nitrophenol	A	ND	4.3	50	ug, Total	1	02/04/09 20:44
Bis(2-chloroethoxy)methane	A	ND	1	10	ug, Total	1	02/04/09 20:44
Bis(2-chloroethyl)ether	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
Bis(2-chloroisopropyl)ether	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
Bis(2-ethylhexyl)phthalate	A	4.9	1.1	10	J ug, Total	1	02/04/09 20:44
Butyl benzyl phthalate	A	ND	1	10	ug, Total	1	02/04/09 20:44
Carbazole	A	ND	1.2	10	ug, Total	1	02/04/09 20:44
Di-n-butyl phthalate	A	ND	1.2	10	ug, Total	1	02/04/09 20:44
Di-n-octyl phthalate	A	ND	1.1	10	ug, Total	1	02/04/09 20:44
Dibenzofuran	A	ND	0.8	10	ug, Total	1	02/04/09 20:44
Diethyl phthalate	A	ND	1.1	10	ug, Total	1	02/04/09 20:44
Dimethyl phthalate	A	ND	0.9	10	ug, Total	1	02/04/09 20:44
Hexachlorobenzene	A	ND	0.9	10	ug, Total	1	02/04/09 20:44

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-03B  
**Collection Date:** 01/29/09 09:42  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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<b>SEMI-VOLATILE ORGANIC ANALYTE</b>		Method: TO-13MOD						
		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
		A	ND	0.9	10	µg, Total	1	02/04/09 20:44
Hexachlorobutadiene		A	ND	0.6	10	µg, Total	1	02/04/09 20:44
Hexachlorocyclopentadiene		A	ND	0.9	10	µg, Total	1	02/04/09 20:44
Isophorone		A	ND	1	10	µg, Total	1	02/04/09 20:44
N-Nitrosodi-n-propylamine		A	ND	1	10	µg, Total	1	02/04/09 20:44
N-Nitrosodiphenylamine		A	ND	0.7	10	µg, Total	1	02/04/09 20:44
Nitrobenzene		A	ND	1	10	µg, Total	1	02/04/09 20:44
Pentachlorophenol		A	ND	1.3	50	µg, Total	1	02/04/09 20:44
Phenol		A	ND	0.4	10	µg, Total	1	02/04/09 20:44
<i>Surr: 2,4,6-Tribromophenol</i>	S	65.5	0	39.4-112		%REC	1	02/04/09 20:44
<i>Surr: 2-Fluorobiphenyl</i>	S	51.3	0	21.6-123		%REC	1	02/04/09 20:44
<i>Surr: 2-Fluorophenol</i>	S	41.1	0	27.7-78		%REC	1	02/04/09 20:44
<i>Surr: Nitrobenzene-d5</i>	S	50.3	0	36.9-89.6		%REC	1	02/04/09 20:44
<i>Surr: Phenol-d5</i>	S	48.5	0	46.1-73.5		%REC	1	02/04/09 20:44
<i>Surr: Terphenyl-d14</i>	S	72.8	0	55.8-111		%REC	1	02/04/09 20:44

<b>PAHS BY GC/MS-SIM</b>		Method: TO-13						
		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
		A	ND	0.21	1.0	µg, Total	1	02/04/09 20:44
Acenaphthene		A	ND	0.22	1.0	µg, Total	1	02/04/09 20:44
Acenaphthylene		A	ND	0.27	1.0	µg, Total	1	02/04/09 20:44
Anthracene		A	ND	0.47	1.0	µg, Total	1	02/04/09 20:44
Benz[a]anthracene		A	ND	0.38	1.0	µg, Total	1	02/04/09 20:44
Benz[a]pyrene		A	ND	0.44	1.0	µg, Total	1	02/04/09 20:44
Benz[b]fluoranthene		A	ND	0.72	1.0	µg, Total	1	02/04/09 20:44
Benzof[g,h,i]perylene		A	ND	0.8	1.0	µg, Total	1	02/04/09 20:44
Chrysene		A	ND	0.57	1.0	µg, Total	1	02/04/09 20:44
Dibenz[a,h]anthracene		A	ND	0.54	1.0	µg, Total	1	02/04/09 20:44
Fluoranthene		A	ND	0.39	1.0	µg, Total	1	02/04/09 20:44
Fluorene		A	ND	0.25	1.0	µg, Total	1	02/04/09 20:44
Indeno[1,2,3cd]pyrene		A	ND	0.56	1.0	µg, Total	1	02/04/09 20:44
Naphthalene		A	ND	0.16	1.0	µg, Total	1	02/04/09 20:44
Phenanthrene		A	ND	0.27	1.0	µg, Total	1	02/04/09 20:44
Pyrene		A	ND	0.44	1.0	µg, Total	1	02/04/09 20:44
<i>Surr: Nitrobenzene-d5</i>	S	50.3	0	36.9-89.6		%REC	1	02/04/09 20:44
<i>Surr: 2-Fluorobiphenyl</i>	S	51.3	0	21.6-123		%REC	1	02/04/09 20:44
<i>Surr: Terphenyl-d14</i>	S	72.8	0	55.8-111		%REC	1	02/04/09 20:44

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14-4-109

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-04B  
**Collection Date:** 01/29/09 10:40  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	02/04/09 21:02
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/04/09 21:02
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/04/09 21:02
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/04/09 21:02
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/04/09 21:02
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/04/09 21:02
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/04/09 21:02
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/04/09 21:02
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/04/09 21:02
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/04/09 21:02
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/04/09 21:02
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/04/09 21:02
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/04/09 21:02
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/04/09 21:02
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/04/09 21:02
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/04/09 21:02
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/04/09 21:02
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/04/09 21:02
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/04/09 21:02
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/04/09 21:02
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/04/09 21:02
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
Bis(2-ethylhexyl)phthalate	A	2.3	1.1	10	J	µg, Total	1	02/04/09 21:02
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/04/09 21:02
Carbazole	A	ND	1.2	10		µg, Total	1	02/04/09 21:02
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/04/09 21:02
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/04/09 21:02
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/04/09 21:02
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/04/09 21:02
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 21:02

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX I INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-04B  
**Collection Date:** 01/29/09 10:40  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/04/09 21:02
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/04/09 21:02
Isophorone	A	ND	1	10		µg, Total	1	02/04/09 21:02
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/04/09 21:02
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/04/09 21:02
Nitrobenzene	A	ND	1	10		µg, Total	1	02/04/09 21:02
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/04/09 21:02
Phenol	A	ND	0.4	10		µg, Total	1	02/04/09 21:02
Surr: 2,4,6-Tribromophenol	S	62.7	0	39.4-112	%REC		1	02/04/09 21:02
Surr: 2-Fluorobiphenyl	S	55.1	0	21.6-123	%REC		1	02/04/09 21:02
Surr: 2-Fluorophenol	S	44.7	0	27.7-78	%REC		1	02/04/09 21:02
Surr: Nitrobenzene-d5	S	53.7	0	36.9-89.6	%REC		1	02/04/09 21:02
Surr: Phenol-d5	S	51.5	0	46.1-73.5	%REC		1	02/04/09 21:02
Surr: Terphenyl-d14	S	65.7	0	55.8-111	%REC		1	02/04/09 21:02

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/04/09 21:02
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/04/09 21:02
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:02
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/04/09 21:02
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/04/09 21:02
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:02
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/04/09 21:02
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/04/09 21:02
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/04/09 21:02
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/04/09 21:02
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/04/09 21:02
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/04/09 21:02
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/04/09 21:02
Naphthalene	A	ND	0.16	1.0		µg, Total	1	02/04/09 21:02
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:02
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:02
Surr: Nitrobenzene-d5	S	53.7	0	36.9-89.6	%REC		1	02/04/09 21:02
Surr: 2-Fluorobiphenyl	S	55.1	0	21.6-123	%REC		1	02/04/09 21:02
Surr: Terphenyl-d14	S	65.7	0	55.8-111	%REC		1	02/04/09 21:02

(44-40-9)

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-05B  
**Collection Date:** 01/29/09 09:50  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
					Prep Date/Time: 02/03/09 10:35	Analyst: BEM		
1,2,4-Trichlorobenzene	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
1,2-Dichlorobenzene	A	ND	0.7	10	µg, Total	1	02/04/09 21:20	
1,3-Dichlorobenzene	A	ND	0.8	10	µg, Total	1	02/04/09 21:20	
1,4-Dichlorobenzene	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
2,4,5-Trichlorophenol	A	ND	1.5	10	µg, Total	1	02/04/09 21:20	
2,4,6-Trichlorophenol	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
2,4-Dichlorophenol	A	ND	0.7	10	µg, Total	1	02/04/09 21:20	
2,4-Dimethylphenol	A	ND	0.8	10	µg, Total	1	02/04/09 21:20	
2,4-Dinitrophenol	A	ND	9.4	50	µg, Total	1	02/04/09 21:20	
2,4-Dinitrotoluene	A	ND	0.8	10	µg, Total	1	02/04/09 21:20	
2,6-Dinitrotoluene	A	ND	1.1	10	µg, Total	1	02/04/09 21:20	
2-Chloronaphthalene	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
2-Chlorophenol	A	ND	0.7	10	µg, Total	1	02/04/09 21:20	
2-Methylnaphthalene	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
2-Methylphenol	A	ND	0.7	10	µg, Total	1	02/04/09 21:20	
2-Nitroaniline	A	ND	1	50	µg, Total	1	02/04/09 21:20	
2-Nitrophenol	A	ND	1	10	µg, Total	1	02/04/09 21:20	
3,3'-Dichlorobenzidine	A	ND	0.7	50	µg, Total	1	02/04/09 21:20	
3-Nitroaniline	A	ND	1.3	50	µg, Total	1	02/04/09 21:20	
3/4-Methylphenol	A	ND	0.8	10	µg, Total	1	02/04/09 21:20	
4,6-Dinitro-2-methylphenol	A	ND	1.1	50	µg, Total	1	02/04/09 21:20	
4-Bromophenyl phenyl ether	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
4-Chloro-3-methylphenol	A	ND	1.2	20	µg, Total	1	02/04/09 21:20	
4-Chloroaniline	A	ND	1	20	µg, Total	1	02/04/09 21:20	
4-Chlorophenyl phenyl ether	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
4-Nitroaniline	A	ND	1.7	50	µg, Total	1	02/04/09 21:20	
4-Nitrophenol	A	ND	4.3	50	µg, Total	1	02/04/09 21:20	
Bis(2-chloroethoxy)methane	A	ND	1	10	µg, Total	1	02/04/09 21:20	
Bis(2-chloroethyl)ether	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
Bis(2-chloroisopropyl)ether	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
Bis(2-ethylhexyl)phthalate	A	11	1.1	10	µg, Total	1	02/04/09 21:20	
Butyl benzyl phthalate	A	ND	1	10	µg, Total	1	02/04/09 21:20	
Carbazole	A	ND	1.2	10	µg, Total	1	02/04/09 21:20	
Di-n-butyl phthalate	A	ND	1.2	10	µg, Total	1	02/04/09 21:20	
Di-n-octyl phthalate	A	ND	1.1	10	µg, Total	1	02/04/09 21:20	
Dibenzofuran	A	ND	0.8	10	µg, Total	1	02/04/09 21:20	
Diethyl phthalate	A	ND	1.1	10	µg, Total	1	02/04/09 21:20	
Dimethyl phthalate	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	
Hexachlorobenzene	A	ND	0.9	10	µg, Total	1	02/04/09 21:20	

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## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-05B  
**Collection Date:** 01/29/09 09:50  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/04/09 21:20
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/04/09 21:20
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/04/09 21:20
Isophorone	A	ND	1	10		µg, Total	1	02/04/09 21:20
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/04/09 21:20
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/04/09 21:20
Nitrobenzene	A	ND	1	10		µg, Total	1	02/04/09 21:20
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/04/09 21:20
Phenol	A	ND	0.4	10		µg, Total	1	02/04/09 21:20
Surr: 2,4,6-Tribromophenol	S	66.2	0	39.4-112		%REC	1	02/04/09 21:20
Surr: 2-Fluorobiphenyl	S	54.6	0	21.6-123		%REC	1	02/04/09 21:20
Surr: 2-Fluorophenol	S	43.7	0	27.7-78		%REC	1	02/04/09 21:20
Surr: Nitrobenzene-d5	S	52.4	0	36.9-89.6		%REC	1	02/04/09 21:20
Surr: Phenol-d5	S	50.9	0	46.1-73.5		%REC	1	02/04/09 21:20
Surr: Terphenyl-d14	S	69.7	0	55.8-111		%REC	1	02/04/09 21:20

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/04/09 21:20
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/04/09 21:20
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:20
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/04/09 21:20
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/04/09 21:20
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:20
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/04/09 21:20
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/04/09 21:20
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/04/09 21:20
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/04/09 21:20
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/04/09 21:20
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/04/09 21:20
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/04/09 21:20
Naphthalene	A	ND	0.16	1.0		µg, Total	1	02/04/09 21:20
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:20
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:20
Surr: Nitrobenzene-d5	S	52.4	0	36.9-89.6		%REC	1	02/04/09 21:20
Surr: 2-Fluorobiphenyl	S	54.6	0	21.6-123		%REC	1	02/04/09 21:20
Surr: Terphenyl-d14	S	69.7	0	55.8-111		%REC	1	02/04/09 21:20

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44-40-109

## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-06B  
**Collection Date:** 01/29/09 11:30  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
1,2-Dichlorobenzene	A	1.2	0.7	10	J	ug, Total	1	02/04/09 21:38
1,3-Dichlorobenzene	A	ND	0.8	10		ug, Total	1	02/04/09 21:38
1,4-Dichlorobenzene	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
2,4,5-Trichlorophenol	A	ND	1.5	10		ug, Total	1	02/04/09 21:38
2,4,6-Trichlorophenol	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
2,4-Dichlorophenol	A	ND	0.7	10		ug, Total	1	02/04/09 21:38
2,4-Dimethylphenol	A	ND	0.8	10		ug, Total	1	02/04/09 21:38
2,4-Dinitrophenol	A	ND	9.4	50		ug, Total	1	02/04/09 21:38
2,4-Dinitrotoluene	A	ND	0.8	10		ug, Total	1	02/04/09 21:38
2,6-Dinitrotoluene	A	ND	1.1	10		ug, Total	1	02/04/09 21:38
2-Chloronaphthalene	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
2-Chlorophenol	A	ND	0.7	10		ug, Total	1	02/04/09 21:38
2-Methylnaphthalene	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
2-Methylphenol	A	ND	0.7	10		ug, Total	1	02/04/09 21:38
2-Nitroaniline	A	ND	1	50		ug, Total	1	02/04/09 21:38
2-Nitrophenol	A	ND	1	10		ug, Total	1	02/04/09 21:38
3,3'-Dichlorobenzidine	A	ND	0.7	50		ug, Total	1	02/04/09 21:38
3-Nitroaniline	A	ND	1.3	50		ug, Total	1	02/04/09 21:38
3/4-Methylphenol	A	ND	0.8	10		ug, Total	1	02/04/09 21:38
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		ug, Total	1	02/04/09 21:38
4-Bromophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
4-Chloro-3-methylphenol	A	ND	1.2	20		ug, Total	1	02/04/09 21:38
4-Chloroaniline	A	ND	1	20		ug, Total	1	02/04/09 21:38
4-Chlorophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
4-Nitroaniline	A	ND	1.7	50		ug, Total	1	02/04/09 21:38
4-Nitrophenol	A	ND	4.3	50		ug, Total	1	02/04/09 21:38
Bis(2-chloroethoxy)methane	A	ND	1	10		ug, Total	1	02/04/09 21:38
Bis(2-chloroethyl)ether	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
Bis(2-ethylhexyl)phthalate	A	9.6	1.1	10	J	ug, Total	1	02/04/09 21:38
Butyl benzyl phthalate	A	ND	1	10		ug, Total	1	02/04/09 21:38
Carbazole	A	ND	1.2	10		ug, Total	1	02/04/09 21:38
Di-n-butyl phthalate	A	ND	1.2	10		ug, Total	1	02/04/09 21:38
Di-n-octyl phthalate	A	ND	1.1	10		ug, Total	1	02/04/09 21:38
Dibenzofuran	A	ND	0.8	10		ug, Total	1	02/04/09 21:38
Diethyl phthalate	A	ND	1.1	10		ug, Total	1	02/04/09 21:38
Dimethyl phthalate	A	ND	0.9	10		ug, Total	1	02/04/09 21:38
Hexachlorobenzene	A	ND	0.9	10		ug, Total	1	02/04/09 21:38

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140409

**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-06B  
**Collection Date:** 01/29/09 11:30  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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<b>SEMI-VOLATILE ORGANIC ANALYTE</b>		Method: TO-13MOD Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/04/09 21:38
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/04/09 21:38
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/04/09 21:38
Isophorone	A	ND	1	10		µg, Total	1	02/04/09 21:38
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/04/09 21:38
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/04/09 21:38
Nitrobenzene	A	ND	1	10		µg, Total	1	02/04/09 21:38
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/04/09 21:38
Phenol	A	ND	0.4	10		µg, Total	1	02/04/09 21:38
<i>Surr: 2,4,6-Tribromophenol</i>	S	44.1	0	39.4-112		%REC	1	02/04/09 21:38
<i>Surr: 2-Fluorobiphenyl</i>	S	40.4	0	21.6-123		%REC	1	02/04/09 21:38
<i>Surr: 2-Fluorophenol</i>	S	32.6	0	27.7-78		%REC	1	02/04/09 21:38
<i>Surr: Nitrobenzene-d5</i>	S	40.0	0	36.9-89.6		%REC	1	02/04/09 21:38
<i>Surr: Phenol-d5</i>	S	40.1	0	46.1-73.5	S	%REC	1	02/04/09 21:38
<i>Surr: Terphenyl-d14</i>	S	51.0	0	55.8-111	S	%REC	1	02/04/09 21:38

<b>PAHS BY GC/MS-SIM</b>		Method: TO-13 Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/04/09 21:38
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/04/09 21:38
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:38
Benz[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/04/09 21:38
Benz[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/04/09 21:38
Benz[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:38
Benz[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/04/09 21:38
Benz[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/04/09 21:38
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/04/09 21:38
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/04/09 21:38
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/04/09 21:38
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/04/09 21:38
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/04/09 21:38
Naphthalene	A	2.3	0.16	1.0		µg, Total	1	02/04/09 21:38
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:38
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:38
<i>Surr: Nitrobenzene-d5</i>	S	40.0	0	36.9-89.6		%REC	1	02/04/09 21:38
<i>Surr: 2-Fluorobiphenyl</i>	S	40.4	0	21.6-123		%REC	1	02/04/09 21:38
<i>Surr: Terphenyl-d14</i>	S	51.0	0	55.8-111	S	%REC	1	02/04/09 21:38

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-07B  
**Collection Date:** 01/29/09 11:55  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method:	Prep Date/Time: 02/03/09 10:35 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	02/04/09 21:55
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/04/09 21:55
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/04/09 21:55
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/04/09 21:55
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/04/09 21:55
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/04/09 21:55
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/04/09 21:55
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/04/09 21:55
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/04/09 21:55
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/04/09 21:55
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/04/09 21:55
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/04/09 21:55
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/04/09 21:55
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/04/09 21:55
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/04/09 21:55
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/04/09 21:55
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/04/09 21:55
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/04/09 21:55
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/04/09 21:55
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/04/09 21:55
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/04/09 21:55
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
Bis(2-ethylhexyl)phthalate	A	11	1.1	10		µg, Total	1	02/04/09 21:55
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/04/09 21:55
Carbazole	A	ND	1.2	10		µg, Total	1	02/04/09 21:55
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/04/09 21:55
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/04/09 21:55
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/04/09 21:55
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/04/09 21:55
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 21:55

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-07B  
**Collection Date:** 01/29/09 11:55  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/04/09 21:55
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/04/09 21:55
Isophorone	A	ND	1	10		µg, Total	1	02/04/09 21:55
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/04/09 21:55
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/04/09 21:55
Nitrobenzene	A	ND	1	10		µg, Total	1	02/04/09 21:55
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/04/09 21:55
Phenol	A	ND	0.4	10		µg, Total	1	02/04/09 21:55
Surr: 2,4,6-Tribromophenol	S	50.6	0	39.4-112		%REC	1	02/04/09 21:55
Surr: 2-Fluorobiphenyl	S	39.5	0	21.6-123		%REC	1	02/04/09 21:55
Surr: 2-Fluorophenol	S	31.4	0	27.7-78		%REC	1	02/04/09 21:55
Surr: Nitrobenzene-d5	S	39.4	0	36.9-89.6		%REC	1	02/04/09 21:55
Surr: Phenol-d5	S	38.6	0	46.1-73.5	S	%REC	1	02/04/09 21:55
Surr: Terphenyl-d14	S	53.5	0	55.8-111	S	%REC	1	02/04/09 21:55

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 02/03/09 10:35 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/04/09 21:55
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/04/09 21:55
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:55
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/04/09 21:55
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/04/09 21:55
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:55
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/04/09 21:55
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/04/09 21:55
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/04/09 21:55
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/04/09 21:55
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/04/09 21:55
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/04/09 21:55
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/04/09 21:55
Naphthalene	A	0.79	0.16	1.0	J	µg, Total	1	02/04/09 21:55
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/04/09 21:55
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/04/09 21:55
Surr: Nitrobenzene-d5	S	39.4	0	36.9-89.6		%REC	1	02/04/09 21:55
Surr: 2-Fluorobiphenyl	S	39.5	0	21.6-123		%REC	1	02/04/09 21:55
Surr: Terphenyl-d14	S	53.5	0	55.8-111	S	%REC	1	02/04/09 21:55

44-4019

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## ANALYTICAL RESULTS

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-08B  
**Collection Date:** 01/29/09 11:40  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD	Prep Date/Time: 02/03/09 10:35 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	02/04/09 22:13
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/04/09 22:13
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/04/09 22:13
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/04/09 22:13
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/04/09 22:13
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/04/09 22:13
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/04/09 22:13
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/04/09 22:13
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/04/09 22:13
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/04/09 22:13
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/04/09 22:13
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/04/09 22:13
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/04/09 22:13
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/04/09 22:13
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/04/09 22:13
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/04/09 22:13
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/04/09 22:13
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/04/09 22:13
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/04/09 22:13
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/04/09 22:13
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/04/09 22:13
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
Bis(2-ethylhexyl)phthalate	A	8.1	1.1	10	J	µg, Total	1	02/04/09 22:13
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/04/09 22:13
Carbazole	A	ND	1.2	10		µg, Total	1	02/04/09 22:13
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/04/09 22:13
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/04/09 22:13
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/04/09 22:13
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/04/09 22:13
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/04/09 22:13
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/04/09 22:13

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**ANALYTICAL RESULTS**

Date: Friday, February 13, 2009

**Client:** MWH, Inc.  
**Client Project:** Jan 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0901871-08B  
**Collection Date:** 01/29/09 11:40  
**Date Received:** 01/29/09 13:41

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 02/03/09 10:35 Analyst: BEM					
Hexachlorobutadiene	A	ND	0.9	10	µg, Total	1	02/04/09 22:13	
Hexachlorocyclopentadiene	A	ND	0.6	10	µg, Total	1	02/04/09 22:13	
Hexachloroethane	A	ND	0.9	10	µg, Total	1	02/04/09 22:13	
Isophorone	A	ND	1	10	µg, Total	1	02/04/09 22:13	
N-Nitrosodi-n-propylamine	A	ND	1	10	µg, Total	1	02/04/09 22:13	
N-Nitrosodiphenylamine	A	ND	0.7	10	µg, Total	1	02/04/09 22:13	
Nitrobenzene	A	ND	1	10	µg, Total	1	02/04/09 22:13	
Pentachlorophenol	A	ND	1.3	50	µg, Total	1	02/04/09 22:13	
Phenol	A	ND	0.4	10	µg, Total	1	02/04/09 22:13	
<i>Surr: 2,4,6-Tribromophenol</i>	S	56.4	0	39.4-112	%REC	1	02/04/09 22:13	
<i>Surr: 2-Fluorobiphenyl</i>	S	41.1	0	21.6-123	%REC	1	02/04/09 22:13	
<i>Surr: 2-Fluorophenol</i>	S	34.5	0	27.7-78	%REC	1	02/04/09 22:13	
<i>Surr: Nitrobenzene-d5</i>	S	40.6	0	36.9-89.6	%REC	1	02/04/09 22:13	
<i>Surr: Phenol-d5</i>	S	39.4	0	46.1-73.5	S	%REC	1	02/04/09 22:13
<i>Surr: Terphenyl-d14</i>	S	58.2	0	55.8-111	%REC	1	02/04/09 22:13	

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 02/03/09 10:35 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0	µg, Total	1	02/04/09 22:13	
Acenaphthylene	A	ND	0.22	1.0	µg, Total	1	02/04/09 22:13	
Anthracene	A	ND	0.27	1.0	µg, Total	1	02/04/09 22:13	
Benzo[a]anthracene	A	ND	0.47	1.0	µg, Total	1	02/04/09 22:13	
Benzo[a]pyrene	A	ND	0.38	1.0	µg, Total	1	02/04/09 22:13	
Benzo[b]fluoranthene	A	ND	0.44	1.0	µg, Total	1	02/04/09 22:13	
Benzo[g,h,i]perylene	A	ND	0.72	1.0	µg, Total	1	02/04/09 22:13	
Benzo[k]fluoranthene	A	ND	0.8	1.0	µg, Total	1	02/04/09 22:13	
Chrysene	A	ND	0.57	1.0	µg, Total	1	02/04/09 22:13	
Dibenz[a,h]anthracene	A	ND	0.54	1.0	µg, Total	1	02/04/09 22:13	
Fluoranthene	A	ND	0.39	1.0	µg, Total	1	02/04/09 22:13	
Fluorene	A	ND	0.25	1.0	µg, Total	1	02/04/09 22:13	
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0	µg, Total	1	02/04/09 22:13	
Naphthalene	A	ND	0.16	1.0	µg, Total	1	02/04/09 22:13	
Phenanthrene	A	ND	0.27	1.0	µg, Total	1	02/04/09 22:13	
Pyrene	A	ND	0.44	1.0	µg, Total	1	02/04/09 22:13	
<i>Surr: Nitrobenzene-d5</i>	S	40.6	0	36.9-89.6	%REC	1	02/04/09 22:13	
<i>Surr: 2-Fluorobiphenyl</i>	S	41.1	0	21.6-123	%REC	1	02/04/09 22:13	
<i>Surr: Terphenyl-d14</i>	S	58.2	0	55.8-111	%REC	1	02/04/09 22:13	

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44-4019

**February 12, 2009 Off-Gas Sample Laboratory Results**

## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-01A  
**Collection Date:** 02/12/09 12:53  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	15000	370	1200	ppbv	3,00	02/26/09 09:01	WT
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/26/09 03:24	
1,1,2-Trichloroethane	A	74	10	30	ppbv	60	02/26/09 03:24	
1,1-Dichloroethane	A	2000	42	150	ppbv	300	02/25/09 21:00	
1,1-Dichloroethene	A	60	10	30	ppbv	60	02/26/09 03:24	
1,2-Dichloroethane	A	270	10	30	ppbv	60	02/26/09 03:24	
1,2-Dichloropropane	A	82	8.4	30	ppbv	60	02/26/09 03:24	
2-Butanone	A	4100	36	590	ppbv	300	02/25/09 21:00	
2-Hexanone	A	ND	20	120	ppbv	60	02/26/09 03:24	
4-Methyl-2-Pentanone	A	1900	71	150	ppbv	300	02/25/09 21:00	
Acetone	A	3900	170	590	ppbv	300	02/25/09 21:00	
Benzene	A	4200	36	150	ppbv	300	02/25/09 21:00	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/26/09 03:24	
Bromoform	A	ND	10	30	ppbv	60	02/26/09 03:24	
Bromomethane	A	ND	11	30	ppbv	60	02/26/09 03:24	
Carbon disulfide	A	ND	11	30	ppbv	60	02/26/09 03:24	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/26/09 03:24	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/26/09 03:24	
Chloroethane	A	97	10	30	ppbv	60	02/26/09 03:24	
Chloroform	A	1100	7.2	30	ppbv	60	02/26/09 03:24	
Chloromethane	A	ND	14	120	ppbv	60	02/26/09 03:24	
cis-1,2-Dichloroethene	A	2000	42	150	ppbv	300	02/25/09 21:00	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/26/09 03:24	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/26/09 03:24	
Ethyl benzene	A	3600	53	150	ppbv	300	02/25/09 21:00	
m,p-Xylene	A	21000	750	2500	ppbv	3,00	02/26/09 09:01	B
Methylene chloride	A	13000	350	10000	ppbv	3,00	02/26/09 09:01	
o-Xylene	A	5900	50	150	ppbv	300	02/25/09 21:00	
Styrene	A	150	11	30	ppbv	60	02/26/09 03:24	
Tetrachloroethene	A	8400	420	1200	ppbv	3,00	02/26/09 09:01	
Toluene	A	36000	450	1200	ppbv	3,00	02/26/09 09:01	
trans-1,2-Dichloroethene	A	24	19	30	J	ppbv	60	02/26/09 03:24
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/26/09 03:24	
Trichloroethene	A	5900	48	150	ppbv	300	02/25/09 21:00	
Vinyl chloride	A	270	9	30	ppbv	60	02/26/09 03:24	
Surr: 4-Bromofluorobenzene	S	102	0	77.7-127	%REC	60	02/26/09 03:24	

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44040109



## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-02A  
**Collection Date:** 02/12/09 12:55  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS	Method:	TO-15	Prep Date/Time:			Analyst: MAK	
1,1,1-Trichloroethane	A	11000	450	1500	ppbv	,00	02/26/09 09:41
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/26/09 04:08
1,1,2-Trichloroethane	A	ND	10	30	ppbv	60	02/26/09 04:08
1,1-Dichloroethane	A	1400	42	150	ppbv	300	02/25/09 21:40
1,1-Dichloroethene	A	57	10	30	ppbv	60	02/26/09 04:08
1,2-Dichloroethane	A	120	10	30	ppbv	60	02/26/09 04:08
1,2-Dichloropropane	A	84	8.4	30	ppbv	60	02/26/09 04:08
2-Butanone	A	170	7.2	120	ppbv	60	02/26/09 04:08
2-Hexanone	A	ND	20	120	ppbv	60	02/26/09 04:08
4-Methyl-2-Pentanone	A	420	14	30	ppbv	60	02/26/09 04:08
Acetone	A	280	34	120	ppbv	60	02/26/09 04:08
Benzene	A	1000	7.2	30	ppbv	60	02/26/09 04:08
Bromodichloromethane	A	ND	9	30	ppbv	60	02/26/09 04:08
Bromoform	A	ND	10	30	ppbv	60	02/26/09 04:08
Bromomethane	A	ND	11	30	ppbv	60	02/26/09 04:08
Carbon disulfide	A	ND	11	30	ppbv	60	02/26/09 04:08
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/26/09 04:08
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/26/09 04:08
Chloroethane	A	130	10	30	ppbv	60	02/26/09 04:08
Chloroform	A	1900	36	150	ppbv	300	02/25/09 21:40
Chloromethane	A	ND	14	120	ppbv	60	02/26/09 04:08
cis-1,2-Dichloroethene	A	14000	420	1500	ppbv	,00	02/26/09 09:41
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/26/09 04:08
Dibromochloromethane	A	ND	10	30	ppbv	60	02/26/09 04:08
Ethyl benzene	A	2400	53	150	ppbv	300	02/25/09 21:40
m,p-Xylene	A	10000	89	300	ppbv	300	02/25/09 21:40
Methylene chloride	A	3100	42	1200	ppbv	300	02/25/09 21:40
o-Xylene	A	5200	50	150	ppbv	300	02/25/09 21:40
Styrene	A	46	11	30	ppbv	60	02/26/09 04:08
Tetrachloroethene	A	13000	510	1500	ppbv	,00	02/26/09 09:41
Toluene	A	14000	540	1500	ppbv	,00	02/26/09 09:41
trans-1,2-Dichloroethene	A	53	19	30	ppbv	60	02/26/09 04:08
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/26/09 04:08
Trichloroethene	A	4000	48	150	ppbv	300	02/25/09 21:40
Vinyl chloride	A	550	9	30	ppbv	60	02/26/09 04:08
Surr: 4-Bromofluorobenzene	S	104	0	77.7-127	%REC	60	02/26/09 04:08

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-03A  
**Collection Date:** 02/12/09 13:45  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS	Method: TO-15		Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	10000	410	1400	ppbv	,00	02/26/09 11:00	MAK
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/26/09 05:34	
1,1,2-Trichloroethane	A	18	10	30	J	ppbv	60	02/26/09 05:34
1,1-Dichloroethane	A	1400	42	150	ppbv	300	02/25/09 23:04	
1,1-Dichloroethene	A	58	10	30	ppbv	60	02/26/09 05:34	
1,2-Dichloroethane	A	120	10	30	ppbv	60	02/26/09 05:34	
1,2-Dichloropropane	A	ND	8.4	30	ppbv	60	02/26/09 05:34	
2-Butanone	A	340	7.2	120	ppbv	60	02/26/09 05:34	
2-Hexanone	A	ND	20	120	ppbv	60	02/26/09 05:34	
4-Methyl-2-Pentanone	A	500	14	30	ppbv	60	02/26/09 05:34	
Acetone	A	440	34	120	ppbv	60	02/26/09 05:34	
Benzene	A	1100	7.2	30	ppbv	60	02/26/09 05:34	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/26/09 05:34	
Bromoform	A	ND	10	30	ppbv	60	02/26/09 05:34	
Bromomethane	A	ND	11	30	ppbv	60	02/26/09 05:34	
Carbon disulfide	A	ND	11	30	ppbv	60	02/26/09 05:34	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/26/09 05:34	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/26/09 05:34	
Chloroethane	A	120	10	30	ppbv	60	02/26/09 05:34	
Chloroform	A	1900	36	150	ppbv	300	02/25/09 23:04	
Chloromethane	A	ND	14	120	ppbv	60	02/26/09 05:34	
cis-1,2-Dichloroethene	A	13000	380	1400	ppbv	,00	02/26/09 11:00	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/26/09 05:34	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/26/09 05:34	
Ethyl benzene	A	2200	53	150	ppbv	300	02/25/09 23:04	
m,p-Xylene	A	9300	89	300	ppbv	300	02/25/09 23:04	
Methylene chloride	A	3300	42	1200	ppbv	300	02/25/09 23:04	
o-Xylene	A	4600	50	150	ppbv	300	02/25/09 23:04	
Styrene	A	49	11	30	ppbv	60	02/26/09 05:34	
Tetrachloroethene	A	11000	460	1400	ppbv	,00	02/26/09 11:00	
Toluene	A	12000	490	1400	ppbv	,00	02/26/09 11:00	
trans-1,2-Dichloroethene	A	52	19	30	ppbv	60	02/26/09 05:34	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/26/09 05:34	
Trichloroethene	A	4000	48	150	ppbv	300	02/25/09 23:04	
Vinyl chloride	A	550	9	30	ppbv	60	02/26/09 05:34	
Surr: 4-Bromofluorobenzene	S	105	0	77.7-127	%REC	60	02/26/09 05:34	

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX I INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-04A  
**Collection Date:** 02/12/09 14:17  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	11000	450	1500		ppbv	3,00	02/26/09 10:20
1,1,2,2-Tetrachloroethane	A	ND	13	30		ppbv	60	02/26/09 04:51
1,1,2-Trichloroethane	A	15	10	30	J	ppbv	60	02/26/09 04:51
1,1-Dichloroethane	A	1400	42	150		ppbv	300	02/25/09 22:21
1,1-Dichloroethene	A	58	10	30		ppbv	60	02/26/09 04:51
1,2-Dichloroethane	A	120	10	30		ppbv	60	02/26/09 04:51
1,2-Dichloropropane	A	ND	8.4	30		ppbv	60	02/26/09 04:51
2-Butanone	A	170	7.2	120		ppbv	60	02/26/09 04:51
2-Hexanone	A	ND	20	120		ppbv	60	02/26/09 04:51
4-Methyl-2-Pentanone	A	410	14	30		ppbv	60	02/26/09 04:51
Acetone	A	290	34	120		ppbv	60	02/26/09 04:51
Benzene	A	990	7.2	30		ppbv	60	02/26/09 04:51
Bromodichloromethane	A	ND	9	30		ppbv	60	02/26/09 04:51
Bromoform	A	ND	10	30		ppbv	60	02/26/09 04:51
Bromomethane	A	ND	11	30		ppbv	60	02/26/09 04:51
Carbon disulfide	A	ND	11	30		ppbv	60	02/26/09 04:51
Carbon tetrachloride	A	ND	9.6	30		ppbv	60	02/26/09 04:51
Chlorobenzene	A	ND	9.6	30		ppbv	60	02/26/09 04:51
Chloroethane	A	120	10	30		ppbv	60	02/26/09 04:51
Chloroform	A	1900	36	150		ppbv	300	02/25/09 22:21
Chloromethane	A	ND	14	120		ppbv	60	02/26/09 04:51
cis-1,2-Dichloroethene	A	14000	420	1500		ppbv	3,00	02/26/09 10:20
cis-1,3-Dichloropropene	A	ND	8.4	30		ppbv	60	02/26/09 04:51
Dibromochloromethane	A	ND	10	30		ppbv	60	02/26/09 04:51
Ethyl benzene	A	2200	53	150		ppbv	300	02/25/09 22:21
m,p-Xylene	A	9400	89	300		ppbv	300	02/25/09 22:21
Methylene chloride	A	3200	42	1200		ppbv	300	02/25/09 22:21
o-Xylene	A	4800	50	150		ppbv	300	02/25/09 22:21
Styrene	A	42	11	30		ppbv	60	02/26/09 04:51
Tetrachloroethene	A	13000	510	1500		ppbv	3,00	02/26/09 10:20
Toluene	A	14000	540	1500		ppbv	3,00	02/26/09 10:20
trans-1,2-Dichloroethene	A	54	19	30		ppbv	60	02/26/09 04:51
trans-1,3-Dichloropropene	A	ND	7.2	30		ppbv	60	02/26/09 04:51
Trichloroethene	A	4000	48	150		ppbv	300	02/25/09 22:21
Vinyl chloride	A	560	9	30		ppbv	60	02/26/09 04:51
Surr: 4-Bromofluorobenzene	S	102	0	77.7-127		%REC	60	02/26/09 04:51

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44040109

## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-05A  
**Collection Date:** 02/12/09 13:38  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	270	7.5	25	ppbv	50	02/26/09 08:19	
1,1,2,2-Tetrachloroethane	A	ND	0.22	0.50	ppbv	1	02/26/09 01:14	
1,1,2-Trichloroethane	A	1.8	0.17	0.50	ppbv	1	02/26/09 01:14	
1,1-Dichloroethane	A	49	0.69	2.5	ppbv	5	02/25/09 19:39	
1,1-Dichloroethene	A	75	0.84	2.5	ppbv	5	02/25/09 19:39	
1,2-Dichloroethane	A	5.0	0.17	0.50	ppbv	1	02/26/09 01:14	
1,2-Dichloropropane	A	ND	0.14	0.50	ppbv	1	02/26/09 01:14	
2-Butanone	A	79	0.59	9.9	ppbv	5	02/25/09 19:39	
2-Hexanone	A	ND	0.34	2.0	ppbv	1	02/26/09 01:14	
4-Methyl-2-Pentanone	A	15	0.24	0.50	ppbv	1	02/26/09 01:14	
Acetone	A	130	28	100	ppbv	50	02/26/09 08:19	
Benzene	A	170	6	25	ppbv	50	02/26/09 08:19	
Bromodichloromethane	A	ND	0.15	0.50	ppbv	1	02/26/09 01:14	
Bromoform	A	ND	0.17	0.50	ppbv	1	02/26/09 01:14	
Bromomethane	A	ND	0.19	0.50	ppbv	1	02/26/09 01:14	
Carbon disulfide	A	ND	0.18	0.50	ppbv	1	02/26/09 01:14	
Carbon tetrachloride	A	0.29	0.16	0.50	J	ppbv	1	02/26/09 01:14
Chlorobenzene	A	ND	0.16	0.50	ppbv	1	02/26/09 01:14	
Chloroethane	A	1.3	0.17	0.50	ppbv	1	02/26/09 01:14	
Chloroform	A	35	0.59	2.5	ppbv	5	02/25/09 19:39	
Chloromethane	A	3.1	0.23	2.0	ppbv	1	02/26/09 01:14	
cis-1,2-Dichloroethene	A	44	0.69	2.5	ppbv	5	02/25/09 19:39	
cis-1,3-Dichloropropene	A	ND	0.14	0.50	ppbv	1	02/26/09 01:14	
Dibromochloromethane	A	ND	0.17	0.50	ppbv	1	02/26/09 01:14	
Ethyl benzene	A	54	0.89	2.5	ppbv	5	02/25/09 19:39	
m,p-Xylene	A	190	1.5	5.0	ppbv	5	02/25/09 19:39	
Methylene chloride	A	260	7	200	ppbv	50	02/26/09 08:19	
o-Xylene	A	76	0.84	2.5	ppbv	5	02/25/09 19:39	
Styrene	A	14	0.19	0.50	ppbv	1	02/26/09 01:14	
Tetrachloroethene	A	250	8.5	25	ppbv	50	02/26/09 08:19	
Toluene	A	680	9	25	ppbv	50	02/26/09 08:19	
trans-1,2-Dichloroethene	A	5.4	0.31	0.50	ppbv	1	02/26/09 01:14	
trans-1,3-Dichloropropene	A	ND	0.12	0.50	ppbv	1	02/26/09 01:14	
Trichloroethene	A	180	8	25	ppbv	50	02/26/09 08:19	
Vinyl chloride	A	0.53	0.15	0.50	ppbv	1	02/26/09 01:14	
Surr: 4-Bromofluorobenzene	S	97.7	0	77.7-127	%REC	1	02/26/09 01:14	

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-06A  
**Collection Date:** 02/12/09 14:13  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	16000	450	1500	ppbv	,00	02/26/09 11:41	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/26/09 06:15	
1,1,2-Trichloroethane	A	75	10	30	ppbv	60	02/26/09 06:15	
1,1-Dichloroethane	A	1900	42	150	ppbv	300	02/25/09 23:47	
1,1-Dichloroethene	A	53	10	30	ppbv	60	02/26/09 06:15	
1,2-Dichloroethane	A	260	10	30	ppbv	60	02/26/09 06:15	
1,2-Dichloropropane	A	ND	8.4	30	ppbv	60	02/26/09 06:15	
2-Butanone	A	3800	36	600	ppbv	300	02/25/09 23:47	
2-Hexanone	A	ND	20	120	ppbv	60	02/26/09 06:15	4J
4-Methyl-2-Pentanone	A	1800	72	150	ppbv	300	02/25/09 23:47	
Acetone	A	3600	170	600	ppbv	300	02/25/09 23:47	
Benzene	A	3900	36	150	ppbv	300	02/25/09 23:47	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/26/09 06:15	
Bromoform	A	ND	10	30	ppbv	60	02/26/09 06:15	
Bromomethane	A	ND	11	30	ppbv	60	02/26/09 06:15	
Carbon disulfide	A	ND	11	30	ppbv	60	02/26/09 06:15	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/26/09 06:15	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/26/09 06:15	
Chloroethane	A	100	10	30	ppbv	60	02/26/09 06:15	
Chloroform	A	1100	7.2	30	ppbv	60	02/26/09 06:15	
Chloromethane	A	ND	14	120	ppbv	60	02/26/09 06:15	
cis-1,2-Dichloroethene	A	1800	42	150	ppbv	300	02/25/09 23:47	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/26/09 06:15	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/26/09 06:15	
Ethyl benzene	A	3500	54	150	ppbv	300	02/25/09 23:47	
m,p-Xylene	A	22000	900	3000	ppbv	,00	02/26/09 11:41	B
Methylene chloride	A	14000	420	12000	ppbv	,00	02/26/09 11:41	
o-Xylene	A	5800	51	150	ppbv	300	02/25/09 23:47	
Styrene	A	160	11	30	ppbv	60	02/26/09 06:15	
Tetrachloroethene	A	5800	51	150	ppbv	300	02/25/09 23:47	
Toluene	A	40000	540	1500	ppbv	,00	02/26/09 11:41	J
trans-1,2-Dichloroethene	A	20	19	30	J	ppbv	60	02/26/09 06:15
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/26/09 06:15	
Trichloroethene	A	5500	48	150	ppbv	300	02/25/09 23:47	
Vinyl chloride	A	240	9	30	ppbv	60	02/26/09 06:15	
<i>Sur: 4-Bromofluorobenzene</i>	S	113	0	77.7-127	%REC	60	02/26/09 06:15	

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4404-1-9

## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-07A  
**Collection Date:** 02/12/09 15:03  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	15000	410	1400	ppbv	,00	02/26/09 12:21	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	02/26/09 06:57	
1,1,2-Trichloroethane	A	71	10	30	ppbv	60	02/26/09 06:57	
1,1-Dichloroethane	A	1900	42	150	ppbv	300	02/26/09 00:30	
1,1-Dichloroethene	A	51	10	30	ppbv	60	02/26/09 06:57	
1,2-Dichloroethane	A	260	10	30	ppbv	60	02/26/09 06:57	
1,2-Dichloropropane	A	ND	8.4	30	ppbv	60	02/26/09 06:57	
2-Butanone	A	3700	36	590	ppbv	300	02/26/09 00:30	
2-Hexanone	A	ND	20	120	ppbv	60	02/26/09 06:57	WJ
4-Methyl-2-Pentanone	A	1800	71	150	ppbv	300	02/26/09 00:30	
Acetone	A	3600	170	590	ppbv	300	02/26/09 00:30	
Benzene	A	3800	36	150	ppbv	300	02/26/09 00:30	
Bromodichloromethane	A	ND	9	30	ppbv	60	02/26/09 06:57	
Bromoform	A	ND	10	30	ppbv	60	02/26/09 06:57	
Bromomethane	A	ND	11	30	ppbv	60	02/26/09 06:57	
Carbon disulfide	A	ND	11	30	ppbv	60	02/26/09 06:57	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	02/26/09 06:57	
Chlorobenzene	A	ND	9.6	30	ppbv	60	02/26/09 06:57	
Chloroethane	A	94	10	30	ppbv	60	02/26/09 06:57	
Chloroform	A	1000	7.2	30	ppbv	60	02/26/09 06:57	
Chloromethane	A	ND	14	120	ppbv	60	02/26/09 06:57	
cis-1,2-Dichloroethene	A	1700	42	150	ppbv	300	02/26/09 00:30	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	02/26/09 06:57	
Dibromochloromethane	A	ND	10	30	ppbv	60	02/26/09 06:57	
Ethyl benzene	A	3500	53	150	ppbv	300	02/26/09 00:30	
m,p-Xylene	A	21000	820	2700	ppbv	,00	02/26/09 12:21	B
Methylene chloride	A	14000	380	11000	ppbv	,00	02/26/09 12:21	
o-Xylene	A	5800	50	150	ppbv	300	02/26/09 00:30	
Styrene	A	130	11	30	ppbv	60	02/26/09 06:57	
Tetrachloroethene	A	5800	50	150	ppbv	300	02/26/09 00:30	
Toluene	A	38000	490	1400	ppbv	,00	02/26/09 12:21	J
trans-1,2-Dichloroethene	A	ND	19	30	ppbv	60	02/26/09 06:57	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	02/26/09 06:57	
Trichloroethene	A	5400	48	150	ppbv	300	02/26/09 00:30	
Vinyl chloride	A	220	9	30	ppbv	60	02/26/09 06:57	
Surr: 4-Bromofluorobenzene	S	104	0	77.7-127	%REC	60	02/26/09 06:57	

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-08A  
**Collection Date:** 02/12/09 14:30  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15		Prep Date/Time:		Analyst: MAK		
1,1,1-Trichloroethane	A	35	0.74	2.4	ppbv	5	02/25/09 20:19	J
1,1,2,2-Tetrachloroethane	A	ND	0.22	0.50	ppbv	1	02/26/09 01:58	
1,1,2-Trichloroethane	A	0.38	0.17	0.50	ppbv	1	02/26/09 01:58	
1,1-Dichloroethane	A	13	0.14	0.50	ppbv	1	02/26/09 01:58	
1,1-Dichloroethene	A	50	0.83	2.4	ppbv	5	02/25/09 20:19	
1,2-Dichloroethane	A	1.8	0.17	0.50	ppbv	1	02/26/09 01:58	
1,2-Dichloropropane	A	ND	0.14	0.50	ppbv	1	02/26/09 01:58	
2-Butanone	A	12	0.12	2.0	ppbv	1	02/26/09 01:58	J
2-Hexanone	A	ND	0.34	2.0	ppbv	1	02/26/09 01:58	J
4-Methyl-2-Pentanone	A	11	0.24	0.50	ppbv	1	02/26/09 01:58	
Acetone	A	16	0.56	2.0	ppbv	1	02/26/09 01:58	
Benzene	A	33	0.59	2.4	ppbv	5	02/25/09 20:19	J
Bromodichloromethane	A	ND	0.15	0.50	ppbv	1	02/26/09 01:58	
Bromoform	A	ND	0.17	0.50	ppbv	1	02/26/09 01:58	
Bromomethane	A	ND	0.19	0.50	ppbv	1	02/26/09 01:58	
Carbon disulfide	A	ND	0.18	0.50	ppbv	1	02/26/09 01:58	
Carbon tetrachloride	A	ND	0.16	0.50	ppbv	1	02/26/09 01:58	
Chlorobenzene	A	ND	0.16	0.50	ppbv	1	02/26/09 01:58	
Chloroethane	A	1.7	0.17	0.50	ppbv	1	02/26/09 01:58	J
Chloroform	A	12	0.12	0.50	ppbv	1	02/26/09 01:58	
Chloromethane	A	1.2	0.23	2.0	J	ppbv	1	02/26/09 01:58
cis-1,2-Dichloroethene	A	50	0.69	2.4	ppbv	5	02/25/09 20:19	
cis-1,3-Dichloropropene	A	ND	0.14	0.50	ppbv	1	02/26/09 01:58	
Dibromochloromethane	A	ND	0.17	0.50	ppbv	1	02/26/09 01:58	
Ethyl benzene	A	20	0.18	0.50	ppbv	1	02/26/09 01:58	
m,p-Xylene	A	43	1.5	4.9	ppbv	5	02/25/09 20:19	B
Methylene chloride	A	39	0.69	20	ppbv	5	02/25/09 20:19	
o-Xylene	A	18	0.83	2.4	ppbv	5	02/25/09 20:19	
Styrene	A	8.4	0.19	0.50	ppbv	1	02/26/09 01:58	
Tetrachloroethene	A	78	0.83	2.4	ppbv	5	02/25/09 20:19	
Toluene	A	86	0.88	2.4	ppbv	5	02/25/09 20:19	J
trans-1,2-Dichloroethene	A	12	0.31	0.50	ppbv	1	02/26/09 01:58	
trans-1,3-Dichloropropene	A	ND	0.12	0.50	ppbv	1	02/26/09 01:58	
Trichloroethene	A	40	0.78	2.4	ppbv	5	02/25/09 20:19	
Vinyl chloride	A	13	0.15	0.50	ppbv	1	02/26/09 01:58	
Surr: 4-Bromofluorobenzene	S	106	0	77.7-127	%REC	1	02/26/09 01:58	

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-01B  
**Collection Date:** 02/12/09 12:53  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 02/15/09 14:00 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
1,2-Dichlorobenzene	A	1.7	0.7	10	J	µg, Total	1	02/20/09 22:16
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/20/09 22:16
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/20/09 22:16
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:16
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 22:16
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/20/09 22:16
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/20/09 22:16
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/20/09 22:16
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:16
2-Methylnaphthalene	A	0.94	0.9	10	J	µg, Total	1	02/20/09 22:16
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:16
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/20/09 22:16
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/20/09 22:16
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/20/09 22:16
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/20/09 22:16
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 22:16
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/20/09 22:16
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/20/09 22:16
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/20/09 22:16
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/20/09 22:16
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/20/09 22:16
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/20/09 22:16
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
Bis(2-ethylhexyl)phthalate	A	3.4	1.1	10	J	µg, Total	1	02/20/09 22:16
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/20/09 22:16
Carbazole	A	ND	1.2	10		µg, Total	1	02/20/09 22:16
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/20/09 22:16
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:16
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/20/09 22:16
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:16
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:16

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**ANALYTICAL RESULTS**

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 OFFSITE ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-01B  
**Collection Date:** 02/12/09 12:53  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/20/09 22:16
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/20/09 22:16
Isophorone	A	ND	1	10		µg, Total	1	02/20/09 22:16
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/20/09 22:16
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/20/09 22:16
Nitrobenzene	A	ND	1	10		µg, Total	1	02/20/09 22:16
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/20/09 22:16
Phenol	A	ND	0.4	10		µg, Total	1	02/20/09 22:16
Surr: 2,4,6-Tribromophenol	S	61.7	0	39.4-112		%REC	1	02/20/09 22:16
Surr: 2-Fluorobiphenyl	S	51.2	0	21.6-123		%REC	1	02/20/09 22:16
Surr: 2-Fluorophenol	S	41.5	0	27.7-78		%REC	1	02/20/09 22:16
Surr: Nitrobenzene-d5	S	45.0	0	36.9-89.6		%REC	1	02/20/09 22:16
Surr: Phenol-d5	S	42.1	0	46.1-73.5	S	%REC	1	02/20/09 22:16
Surr: Terphenyl-d14	S	44.3	0	55.8-111	S	%REC	1	02/20/09 22:16

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/20/09 22:16
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/20/09 22:16
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/20/09 22:16
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/20/09 22:16
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/20/09 22:16
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/20/09 22:16
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/20/09 22:16
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/20/09 22:16
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/20/09 22:16
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/20/09 22:16
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/20/09 22:16
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/20/09 22:16
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/20/09 22:16
Naphthalene	A	4.6	0.16	1.0		µg, Total	1	02/20/09 22:16
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/20/09 22:16
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/20/09 22:16
Surr: Nitrobenzene-d5	S	45.0	0	36.9-89.6		%REC	1	02/20/09 22:16
Surr: 2-Fluorobiphenyl	S	51.2	0	21.6-123		%REC	1	02/20/09 22:16
Surr: Terphenyl-d14	S	44.3	0	55.8-111	S	%REC	1	02/20/09 22:16

144-409

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-02B  
**Collection Date:** 02/12/09 12:55  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
					Prep Date/Time: 02/15/09 14:00		Analyst: BEM	
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
1,2-Dichlorobenzene	A	1.4	0.7	10	J	µg, Total	1	02/20/09 22:35
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/20/09 22:35
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/20/09 22:35
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:35
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 22:35
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/20/09 22:35
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/20/09 22:35
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/20/09 22:35
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:35
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:35
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/20/09 22:35
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/20/09 22:35
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/20/09 22:35
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/20/09 22:35
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 22:35
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/20/09 22:35
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/20/09 22:35
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/20/09 22:35
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/20/09 22:35
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/20/09 22:35
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/20/09 22:35
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:35
Butyl benzyl phthalate	A	9.4	1	10	J	µg, Total	1	02/20/09 22:35
Carbazole	A	ND	1.2	10		µg, Total	1	02/20/09 22:35
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/20/09 22:35
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:35
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/20/09 22:35
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:35
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/20/09 22:35
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:35

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-02B  
**Collection Date:** 02/12/09 12:55  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE	Method: TO-13MOD		Prep Date/Time: 02/15/09 14:00 Analyst: BEM					
Hexachlorobutadiene	A	ND	0.9	10	ug, Total	1	02/20/09 22:35	
Hexachlorocyclopentadiene	A	ND	0.6	10	ug, Total	1	02/20/09 22:35	
Hexachloroethane	A	ND	0.9	10	ug, Total	1	02/20/09 22:35	
Isophorone	A	ND	1	10	ug, Total	1	02/20/09 22:35	
N-Nitrosodi-n-propylamine	A	ND	1	10	ug, Total	1	02/20/09 22:35	
N-Nitrosodiphenylamine	A	ND	0.7	10	ug, Total	1	02/20/09 22:35	
Nitrobenzene	A	ND	1	10	ug, Total	1	02/20/09 22:35	
Pentachlorophenol	A	ND	1.3	50	ug, Total	1	02/20/09 22:35	
Phenol	A	ND	0.4	10	ug, Total	1	02/20/09 22:35	
Surr: 2,4,6-Tribromophenol	S	59.7	0	39.4-112	%REC	1	02/20/09 22:35	
Surr: 2-Fluorobiphenyl	S	37.9	0	21.6-123	%REC	1	02/20/09 22:35	
Surr: 2-Fluorophenol	S	31.5	0	27.7-78	%REC	1	02/20/09 22:35	
Surr: Nitrobenzene-d5	S	35.2	0	36.9-89.6	S	%REC	1	02/20/09 22:35
Surr: Phenol-d5	S	32.3	0	46.1-73.5	S	%REC	1	02/20/09 22:35
Surr: Terphenyl-d14	S	67.8	0	55.8-111	%REC	1	02/20/09 22:35	

PAHS BY GC/MS-SIM	Method: TO-13		Prep Date/Time: 02/15/09 14:00 Analyst: BEM					
Acenaphthene	A	ND	0.21	1.0	ug, Total	1	02/20/09 22:35	
Acenaphthylene	A	ND	0.22	1.0	ug, Total	1	02/20/09 22:35	
Anthracene	A	ND	0.27	1.0	ug, Total	1	02/20/09 22:35	
Benzo[a]anthracene	A	ND	0.47	1.0	ug, Total	1	02/20/09 22:35	
Benzo[a]pyrene	A	ND	0.38	1.0	ug, Total	1	02/20/09 22:35	
Benzo[b]fluoranthene	A	ND	0.44	1.0	ug, Total	1	02/20/09 22:35	
Benzo[g,h,i]perylene	A	ND	0.72	1.0	ug, Total	1	02/20/09 22:35	
Benzo[k]fluoranthene	A	ND	0.8	1.0	ug, Total	1	02/20/09 22:35	
Chrysene	A	ND	0.57	1.0	ug, Total	1	02/20/09 22:35	
Dibenz[a,h]anthracene	A	ND	0.54	1.0	ug, Total	1	02/20/09 22:35	
Fluoranthene	A	ND	0.39	1.0	ug, Total	1	02/20/09 22:35	
Fluorene	A	ND	0.25	1.0	ug, Total	1	02/20/09 22:35	
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0	ug, Total	1	02/20/09 22:35	
Naphthalene	A	1.2	0.16	1.0	ug, Total	1	02/20/09 22:35	
Phenanthrene	A	ND	0.27	1.0	ug, Total	1	02/20/09 22:35	
Pyrene	A	ND	0.44	1.0	ug, Total	1	02/20/09 22:35	
Surr: Nitrobenzene-d5	S	35.2	0	36.9-89.6	S	%REC	1	02/20/09 22:35
Surr: 2-Fluorobiphenyl	S	37.9	0	21.6-123	%REC	1	02/20/09 22:35	
Surr: Terphenyl-d14	S	67.8	0	55.8-111	%REC	1	02/20/09 22:35	

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1440-109

## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-03B  
**Collection Date:** 02/12/09 13:45  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
1,2-Dichlorobenzene	A	0.82	0.7	10	J	µg, Total	1	02/20/09 22:53
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/20/09 22:53
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/20/09 22:53
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:53
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 22:53
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/20/09 22:53
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/20/09 22:53
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/20/09 22:53
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:53
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/20/09 22:53
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/20/09 22:53
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/20/09 22:53
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/20/09 22:53
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/20/09 22:53
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 22:53
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/20/09 22:53
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/20/09 22:53
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/20/09 22:53
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/20/09 22:53
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/20/09 22:53
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/20/09 22:53
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
Bis(2-ethylhexyl)phthalate	A	4.6	1.1	10	J	µg, Total	1	02/20/09 22:53
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/20/09 22:53
Carbazole	A	ND	1.2	10		µg, Total	1	02/20/09 22:53
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/20/09 22:53
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:53
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/20/09 22:53
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 22:53
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/20/09 22:53
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 22:53

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**ANALYTICAL RESULTS**

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-03B  
**Collection Date:** 02/12/09 13:45  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		ug, Total	1	02/20/09 22:53
Hexachlorocyclopentadiene	A	ND	0.6	10		ug, Total	1	02/20/09 22:53
Hexachloroethane	A	ND	0.9	10		ug, Total	1	02/20/09 22:53
Isophorone	A	ND	1	10		ug, Total	1	02/20/09 22:53
N-Nitrosodi-n-propylamine	A	ND	1	10		ug, Total	1	02/20/09 22:53
N-Nitrosodiphenylamine	A	ND	0.7	10		ug, Total	1	02/20/09 22:53
Nitrobenzene	A	ND	1	10		ug, Total	1	02/20/09 22:53
Pentachlorophenol	A	ND	1.3	50		ug, Total	1	02/20/09 22:53
Phenol	A	ND	0.4	10		ug, Total	1	02/20/09 22:53
Surr: 2,4,6-Tribromophenol	S	75.9	0	39.4-112		%REC	1	02/20/09 22:53
Surr: 2-Fluorobiphenyl	S	54.6	0	21.6-123		%REC	1	02/20/09 22:53
Surr: 2-Fluorophenol	S	42.9	0	27.7-78		%REC	1	02/20/09 22:53
Surr: Nitrobenzene-d5	S	48.0	0	36.9-89.6		%REC	1	02/20/09 22:53
Surr: Phenol-d5	S	44.7	0	46.1-73.5	S	%REC	1	02/20/09 22:53
Surr: Terphenyl-d14	S	58.2	0	55.8-111		%REC	1	02/20/09 22:53

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		ug, Total	1	02/20/09 22:53
Acenaphthylene	A	ND	0.22	1.0		ug, Total	1	02/20/09 22:53
Anthracene	A	ND	0.27	1.0		ug, Total	1	02/20/09 22:53
Benzo[a]anthracene	A	ND	0.47	1.0		ug, Total	1	02/20/09 22:53
Benzo[a]pyrene	A	ND	0.38	1.0		ug, Total	1	02/20/09 22:53
Benzo[b]fluoranthene	A	ND	0.44	1.0		ug, Total	1	02/20/09 22:53
Benzo[g,h,i]perylene	A	ND	0.72	1.0		ug, Total	1	02/20/09 22:53
Benzo[k]fluoranthene	A	ND	0.8	1.0		ug, Total	1	02/20/09 22:53
Chrysene	A	ND	0.57	1.0		ug, Total	1	02/20/09 22:53
Dibenz[a,h]anthracene	A	ND	0.54	1.0		ug, Total	1	02/20/09 22:53
Fluoranthene	A	ND	0.39	1.0		ug, Total	1	02/20/09 22:53
Fluorene	A	ND	0.25	1.0		ug, Total	1	02/20/09 22:53
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		ug, Total	1	02/20/09 22:53
Naphthalene	A	0.67	0.16	1.0	J	ug, Total	1	02/20/09 22:53
Phenanthrene	A	ND	0.27	1.0		ug, Total	1	02/20/09 22:53
Pyrene	A	ND	0.44	1.0		ug, Total	1	02/20/09 22:53
Surr: Nitrobenzene-d5	S	48.0	0	36.9-89.6		%REC	1	02/20/09 22:53
Surr: 2-Fluorobiphenyl	S	54.6	0	21.6-123		%REC	1	02/20/09 22:53
Surr: Terphenyl-d14	S	58.2	0	55.8-111		%REC	1	02/20/09 22:53

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-04B  
**Collection Date:** 02/12/09 14:17  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE	Method:	TO-13MOD	Prep Date/Time: 02/15/09 14:00 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	02/20/09 23:12
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/20/09 23:12
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/20/09 23:12
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:12
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 23:12
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/20/09 23:12
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/20/09 23:12
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/20/09 23:12
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:12
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:12
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/20/09 23:12
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/20/09 23:12
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/20/09 23:12
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/20/09 23:12
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 23:12
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/20/09 23:12
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/20/09 23:12
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/20/09 23:12
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/20/09 23:12
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/20/09 23:12
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/20/09 23:12
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
Bis(2-ethylhexyl)phthalate	A	2.1	1.1	10	J	µg, Total	1	02/20/09 23:12
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/20/09 23:12
Carbazole	A	ND	1.2	10		µg, Total	1	02/20/09 23:12
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/20/09 23:12
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 23:12
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/20/09 23:12
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 23:12
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/20/09 23:12
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:12

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-04B  
**Collection Date:** 02/12/09 14:17  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10	µg, Total	1	02/20/09 23:12	
Hexachlorocyclopentadiene	A	ND	0.6	10	µg, Total	1	02/20/09 23:12	
Hexachloroethane	A	ND	0.9	10	µg, Total	1	02/20/09 23:12	
Isophorone	A	ND	1	10	µg, Total	1	02/20/09 23:12	
N-Nitrosodi-n-propylamine	A	ND	1	10	µg, Total	1	02/20/09 23:12	
N-Nitrosodiphenylamine	A	ND	0.7	10	µg, Total	1	02/20/09 23:12	
Nitrobenzene	A	ND	1	10	µg, Total	1	02/20/09 23:12	
Pentachlorophenol	A	ND	1.3	50	µg, Total	1	02/20/09 23:12	
Phenol	A	ND	0.4	10	µg, Total	1	02/20/09 23:12	
Surr: 2,4,6-Tribromophenol	S	85.2	0	39.4-112	%REC	1	02/20/09 23:12	
Surr: 2-Fluorobiphenyl	S	61.4	0	21.6-123	%REC	1	02/20/09 23:12	
Surr: 2-Fluorophenol	S	47.0	0	27.7-78	%REC	1	02/20/09 23:12	
Surr: Nitrobenzene-d5	S	54.2	0	36.9-89.6	%REC	1	02/20/09 23:12	
Surr: Phenol-d5	S	49.4	0	46.1-73.5	%REC	1	02/20/09 23:12	
Surr: Terphenyl-d14	S	66.6	0	55.8-111	%REC	1	02/20/09 23:12	

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0	µg, Total	1	02/20/09 23:12	
Acenaphthylene	A	ND	0.22	1.0	µg, Total	1	02/20/09 23:12	
Anthracene	A	ND	0.27	1.0	µg, Total	1	02/20/09 23:12	
Benz[a]anthracene	A	ND	0.47	1.0	µg, Total	1	02/20/09 23:12	
Benz[a]pyrene	A	ND	0.38	1.0	µg, Total	1	02/20/09 23:12	
Benz[b]fluoranthene	A	ND	0.44	1.0	µg, Total	1	02/20/09 23:12	
Benz[g,h,i]perylene	A	ND	0.72	1.0	µg, Total	1	02/20/09 23:12	
Benz[k]fluoranthene	A	ND	0.8	1.0	µg, Total	1	02/20/09 23:12	
Chrysene	A	ND	0.57	1.0	µg, Total	1	02/20/09 23:12	
Dibenz[a,h]anthracene	A	ND	0.54	1.0	µg, Total	1	02/20/09 23:12	
Fluoranthene	A	ND	0.39	1.0	µg, Total	1	02/20/09 23:12	
Fluorene	A	ND	0.25	1.0	µg, Total	1	02/20/09 23:12	
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0	µg, Total	1	02/20/09 23:12	
Naphthalene	A	0.31	0.16	1.0	J	µg, Total	1	02/20/09 23:12
Phenanthrene	A	ND	0.27	1.0	µg, Total	1	02/20/09 23:12	
Pyrene	A	ND	0.44	1.0	µg, Total	1	02/20/09 23:12	
Surr: Nitrobenzene-d5	S	54.2	0	36.9-89.6	%REC	1	02/20/09 23:12	
Surr: 2-Fluorobiphenyl	S	61.4	0	21.6-123	%REC	1	02/20/09 23:12	
Surr: Terphenyl-d14	S	66.6	0	55.8-111	%REC	1	02/20/09 23:12	

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**ANALYTICAL RESULTS**

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-05B  
**Collection Date:** 02/12/09 13:38  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD			Prep Date/Time: 02/15/09 14:00 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	02/20/09 23:31
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/20/09 23:31
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/20/09 23:31
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:31
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 23:31
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/20/09 23:31
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/20/09 23:31
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/20/09 23:31
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:31
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:31
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/20/09 23:31
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/20/09 23:31
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/20/09 23:31
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/20/09 23:31
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 23:31
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/20/09 23:31
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/20/09 23:31
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/20/09 23:31
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/20/09 23:31
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/20/09 23:31
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/20/09 23:31
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
Bis(2-ethylhexyl)phthalate	A	2.5	1.1	10	J	µg, Total	1	02/20/09 23:31
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/20/09 23:31
Carbazole	A	ND	1.2	10		µg, Total	1	02/20/09 23:31
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/20/09 23:31
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 23:31
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/20/09 23:31
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 23:31
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:31

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**ANALYTICAL RESULTS**

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX I EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-05B  
**Collection Date:** 02/12/09 13:38  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/20/09 23:31
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/20/09 23:31
Isophorone	A	ND	1	10		µg, Total	1	02/20/09 23:31
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/20/09 23:31
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/20/09 23:31
Nitrobenzene	A	ND	1	10		µg, Total	1	02/20/09 23:31
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/20/09 23:31
Phenol	A	ND	0.4	10		µg, Total	1	02/20/09 23:31
Surr: 2,4,6-Tribromophenol	S	63.8	0	39.4-112		%REC	1	02/20/09 23:31
Surr: 2-Fluorobiphenyl	S	55.2	0	21.6-123		%REC	1	02/20/09 23:31
Surr: 2-Fluorophenol	S	40.3	0	27.7-78		%REC	1	02/20/09 23:31
Surr: Nitrobenzene-d5	S	47.3	0	36.9-89.6		%REC	1	02/20/09 23:31
Surr: Phenol-d5	S	44.5	0	46.1-73.5	S	%REC	1	02/20/09 23:31
Surr: Terphenyl-d14	S	69.5	0	55.8-111		%REC	1	02/20/09 23:31

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/20/09 23:31
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/20/09 23:31
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/20/09 23:31
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/20/09 23:31
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/20/09 23:31
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/20/09 23:31
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/20/09 23:31
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/20/09 23:31
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/20/09 23:31
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/20/09 23:31
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/20/09 23:31
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/20/09 23:31
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/20/09 23:31
Naphthalene	A	ND	0.16	1.0		µg, Total	1	02/20/09 23:31
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/20/09 23:31
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/20/09 23:31
Surr: Nitrobenzene-d5	S	47.3	0	36.9-89.6		%REC	1	02/20/09 23:31
Surr: 2-Fluorobiphenyl	S	55.2	0	21.6-123		%REC	1	02/20/09 23:31
Surr: Terphenyl-d14	S	69.5	0	55.8-111		%REC	1	02/20/09 23:31

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-06B  
**Collection Date:** 02/12/09 14:13  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method:	TO-13MOD	Prep Date/Time: 02/15/09 14:00 Analyst: BEM				
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
1,2-Dichlorobenzene	A	2	0.7	10	J	µg, Total	1	02/20/09 23:49
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/20/09 23:49
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/20/09 23:49
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:49
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 23:49
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/20/09 23:49
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/20/09 23:49
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/20/09 23:49
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:49
2-Methylnaphthalene	A	0.94	0.9	10	J	µg, Total	1	02/20/09 23:49
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/20/09 23:49
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/20/09 23:49
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/20/09 23:49
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/20/09 23:49
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/20/09 23:49
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/20/09 23:49
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/20/09 23:49
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/20/09 23:49
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/20/09 23:49
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/20/09 23:49
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/20/09 23:49
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/20/09 23:49
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
Bis(2-ethylhexyl)phthalate	A	1.6	1.1	10	J	µg, Total	1	02/20/09 23:49
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/20/09 23:49
Carbazole	A	ND	1.2	10		µg, Total	1	02/20/09 23:49
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/20/09 23:49
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 23:49
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/20/09 23:49
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/20/09 23:49
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/20/09 23:49
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/20/09 23:49

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-06B  
**Collection Date:** 02/12/09 14:13  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		ug, Total	1	02/20/09 23:49
Hexachlorocyclopentadiene	A	ND	0.6	10		ug, Total	1	02/20/09 23:49
Hexachloroethane	A	ND	0.9	10		ug, Total	1	02/20/09 23:49
Isophorone	A	1.3	1	10	J	ug, Total	1	02/20/09 23:49
N-Nitrosodi-n-propylamine	A	ND	1	10		ug, Total	1	02/20/09 23:49
N-Nitrosodiphenylamine	A	ND	0.7	10		ug, Total	1	02/20/09 23:49
Nitrobenzene	A	ND	1	10		ug, Total	1	02/20/09 23:49
Pentachlorophenol	A	ND	1.3	50		ug, Total	1	02/20/09 23:49
Phenol	A	ND	0.4	10		ug, Total	1	02/20/09 23:49
Surr: 2,4,6-Tribromophenol	S	69.8	0	39.4-112		%REC	1	02/20/09 23:49
Surr: 2-Fluorobiphenyl	S	52.9	0	21.6-123		%REC	1	02/20/09 23:49
Surr: 2-Fluorophenol	S	43.8	0	27.7-78		%REC	1	02/20/09 23:49
Surr: Nitrobenzene-d5	S	47.4	0	36.9-89.6		%REC	1	02/20/09 23:49
Surr: Phenol-d5	S	44.5	0	46.1-73.5	S	%REC	1	02/20/09 23:49
Surr: Terphenyl-d14	S	84.4	0	55.8-111		%REC	1	02/20/09 23:49

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		ug, Total	1	02/20/09 23:49
Acenaphthylene	A	ND	0.22	1.0		ug, Total	1	02/20/09 23:49
Anthracene	A	ND	0.27	1.0		ug, Total	1	02/20/09 23:49
Benz[a]anthracene	A	ND	0.47	1.0		ug, Total	1	02/20/09 23:49
Benz[a]pyrene	A	ND	0.38	1.0		ug, Total	1	02/20/09 23:49
Benz[b]fluoranthene	A	ND	0.44	1.0		ug, Total	1	02/20/09 23:49
Benz[g,h,i]perylene	A	ND	0.72	1.0		ug, Total	1	02/20/09 23:49
Benz[k]fluoranthene	A	ND	0.8	1.0		ug, Total	1	02/20/09 23:49
Chrysene	A	ND	0.57	1.0		ug, Total	1	02/20/09 23:49
Dibenz[a,h]anthracene	A	ND	0.54	1.0		ug, Total	1	02/20/09 23:49
Fluoranthene	A	ND	0.39	1.0		ug, Total	1	02/20/09 23:49
Fluorene	A	ND	0.25	1.0		ug, Total	1	02/20/09 23:49
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		ug, Total	1	02/20/09 23:49
Naphthalene	A	5.0	0.16	1.0		ug, Total	1	02/20/09 23:49
Phenanthrene	A	ND	0.27	1.0		ug, Total	1	02/20/09 23:49
Pyrene	A	ND	0.44	1.0		ug, Total	1	02/20/09 23:49
Surr: Nitrobenzene-d5	S	47.4	0	36.9-89.6		%REC	1	02/20/09 23:49
Surr: 2-Fluorobiphenyl	S	52.9	0	21.6-123		%REC	1	02/20/09 23:49
Surr: Terphenyl-d14	S	84.4	0	55.8-111		%REC	1	02/20/09 23:49

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-07B  
**Collection Date:** 02/12/09 15:03  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
1,2-Dichlorobenzene	A	2.6	0.7	10	J	µg, Total	1	02/21/09 00:07
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/21/09 00:07
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/21/09 00:07
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/21/09 00:07
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/21/09 00:07
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/21/09 00:07
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/21/09 00:07
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/21/09 00:07
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/21/09 00:07
2-Methylnaphthalene	A	1.5	0.9	10	J	µg, Total	1	02/21/09 00:07
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/21/09 00:07
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/21/09 00:07
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/21/09 00:07
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/21/09 00:07
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/21/09 00:07
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/21/09 00:07
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/21/09 00:07
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/21/09 00:07
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/21/09 00:07
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/21/09 00:07
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/21/09 00:07
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/21/09 00:07
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
Bis(2-ethylhexyl)phthalate	A	2.2	1.1	10	J	µg, Total	1	02/21/09 00:07
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/21/09 00:07
Carbazole	A	ND	1.2	10		µg, Total	1	02/21/09 00:07
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/21/09 00:07
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/21/09 00:07
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/21/09 00:07
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/21/09 00:07
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/21/09 00:07

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W4040109

**ANALYTICAL RESULTS**

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-07B  
**Collection Date:** 02/12/09 15:03  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	02/21/09 00:07
Hexachloroethane	A	ND	0.9	10		µg, Total	1	02/21/09 00:07
Isophorone	A	2	1	10	J	µg, Total	1	02/21/09 00:07
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	02/21/09 00:07
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	02/21/09 00:07
Nitrobenzene	A	ND	1	10		µg, Total	1	02/21/09 00:07
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	02/21/09 00:07
Phenol	A	ND	0.4	10		µg, Total	1	02/21/09 00:07
Surr: 2,4,6-Tribromophenol	S	75.1	0	39.4-112		%REC	1	02/21/09 00:07
Surr: 2-Fluorobiphenyl	S	55.7	0	21.6-123		%REC	1	02/21/09 00:07
Surr: 2-Fluorophenol	S	44.3	0	27.7-78		%REC	1	02/21/09 00:07
Surr: Nitrobenzene-d5	S	49.2	0	36.9-89.6		%REC	1	02/21/09 00:07
Surr: Phenol-d5	S	45.6	0	46.1-73.5	S	%REC	1	02/21/09 00:07
Surr: Terphenyl-d14	S	68.5	0	55.8-111		%REC	1	02/21/09 00:07

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	02/21/09 00:07
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	02/21/09 00:07
Anthracene	A	ND	0.27	1.0		µg, Total	1	02/21/09 00:07
Benz[a]anthracene	A	ND	0.47	1.0		µg, Total	1	02/21/09 00:07
Benz[a]pyrene	A	ND	0.38	1.0		µg, Total	1	02/21/09 00:07
Benz[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	02/21/09 00:07
Benz[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	02/21/09 00:07
Benz[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	02/21/09 00:07
Chrysene	A	ND	0.57	1.0		µg, Total	1	02/21/09 00:07
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	02/21/09 00:07
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	02/21/09 00:07
Fluorene	A	ND	0.25	1.0		µg, Total	1	02/21/09 00:07
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	02/21/09 00:07
Naphthalene	A	7.7	0.16	1.0		µg, Total	1	02/21/09 00:07
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	02/21/09 00:07
Pyrene	A	ND	0.44	1.0		µg, Total	1	02/21/09 00:07
Surr: Nitrobenzene-d5	S	49.2	0	36.9-89.6		%REC	1	02/21/09 00:07
Surr: 2-Fluorobiphenyl	S	55.7	0	21.6-123		%REC	1	02/21/09 00:07
Surr: Terphenyl-d14	S	68.5	0	55.8-111		%REC	1	02/21/09 00:07

14M-40109

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## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-08B  
**Collection Date:** 02/12/09 14:30  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE	Method:	TO-13MOD			Prep Date/Time:	02/15/09 14:00	Analyst:	BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	02/21/09 00:26
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	02/21/09 00:26
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	02/21/09 00:26
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	02/21/09 00:26
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	02/21/09 00:26
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	02/21/09 00:26
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	02/21/09 00:26
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	02/21/09 00:26
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	02/21/09 00:26
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
2-Methylphenol	A	ND	0.7	10		µg, Total	1	02/21/09 00:26
2-Nitroaniline	A	ND	1	50		µg, Total	1	02/21/09 00:26
2-Nitrophenol	A	ND	1	10		µg, Total	1	02/21/09 00:26
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	02/21/09 00:26
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	02/21/09 00:26
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	02/21/09 00:26
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	02/21/09 00:26
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	02/21/09 00:26
4-Chloroaniline	A	ND	1	20		µg, Total	1	02/21/09 00:26
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	02/21/09 00:26
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	02/21/09 00:26
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	02/21/09 00:26
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
Bis(2-ethylhexyl)phthalate	A	3.6	1.1	10	J	µg, Total	1	02/21/09 00:26
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	02/21/09 00:26
Carbazole	A	ND	1.2	10		µg, Total	1	02/21/09 00:26
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	02/21/09 00:26
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	02/21/09 00:26
Dibenzofuran	A	ND	0.8	10		µg, Total	1	02/21/09 00:26
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	02/21/09 00:26
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	02/21/09 00:26
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	02/21/09 00:26

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4/11/09

## ANALYTICAL RESULTS

Date: Thursday, March 05, 2009

**Client:** MWH, Inc.  
**Client Project:** Feb 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0902445-08B  
**Collection Date:** 02/12/09 14:30  
**Date Received:** 02/12/09 00:00

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10	µg, Total	1	02/21/09 00:26	
Hexachlorocyclopentadiene	A	ND	0.6	10	µg, Total	1	02/21/09 00:26	
Hexachloroethane	A	ND	0.9	10	µg, Total	1	02/21/09 00:26	
Isophorone	A	ND	1	10	µg, Total	1	02/21/09 00:26	
N-Nitrosodi-n-propylamine	A	ND	1	10	µg, Total	1	02/21/09 00:26	
N-Nitrosodiphenylamine	A	ND	0.7	10	µg, Total	1	02/21/09 00:26	
Nitrobenzene	A	ND	1	10	µg, Total	1	02/21/09 00:26	
Pentachlorophenol	A	ND	1.3	50	µg, Total	1	02/21/09 00:26	
Phenol	A	ND	0.4	10	µg, Total	1	02/21/09 00:26	
Surr: 2,4,6-Tribromophenol	S	73.9	0	39.4-112	%REC	1	02/21/09 00:26	
Surr: 2-Fluorobiphenyl	S	64.2	0	21.6-123	%REC	1	02/21/09 00:26	
Surr: 2-Fluorophenol	S	49.0	0	27.7-78	%REC	1	02/21/09 00:26	
Surr: Nitrobenzene-d5	S	54.6	0	36.9-89.6	%REC	1	02/21/09 00:26	
Surr: Phenol-d5	S	51.9	0	46.1-73.5	%REC	1	02/21/09 00:26	
Surr: Terphenyl-d14	S	63.7	0	55.8-111	%REC	1	02/21/09 00:26	

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 02/15/09 14:00 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0	µg, Total	1	02/21/09 00:26	
Acenaphthylene	A	ND	0.22	1.0	µg, Total	1	02/21/09 00:26	
Anthracene	A	ND	0.27	1.0	µg, Total	1	02/21/09 00:26	
Benz[a]anthracene	A	ND	0.47	1.0	µg, Total	1	02/21/09 00:26	
Benz[a]pyrene	A	ND	0.38	1.0	µg, Total	1	02/21/09 00:26	
Benz[b]fluoranthene	A	ND	0.44	1.0	µg, Total	1	02/21/09 00:26	
Benz[g,h,i]perylene	A	ND	0.72	1.0	µg, Total	1	02/21/09 00:26	
Benz[k]fluoranthene	A	ND	0.8	1.0	µg, Total	1	02/21/09 00:26	
Chrysene	A	ND	0.57	1.0	µg, Total	1	02/21/09 00:26	
Dibenz[a,h]anthracene	A	ND	0.54	1.0	µg, Total	1	02/21/09 00:26	
Fluoranthene	A	ND	0.39	1.0	µg, Total	1	02/21/09 00:26	
Fluorene	A	ND	0.25	1.0	µg, Total	1	02/21/09 00:26	
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0	µg, Total	1	02/21/09 00:26	
Naphthalene	A	ND	0.16	1.0	µg, Total	1	02/21/09 00:26	
Phenanthrene	A	ND	0.27	1.0	µg, Total	1	02/21/09 00:26	
Pyrene	A	ND	0.44	1.0	µg, Total	1	02/21/09 00:26	
Surr: Nitrobenzene-d5	S	54.6	0	36.9-89.6	%REC	1	02/21/09 00:26	
Surr: 2-Fluorobiphenyl	S	64.2	0	21.6-123	%REC	1	02/21/09 00:26	
Surr: Terphenyl-d14	S	63.7	0	55.8-111	%REC	1	02/21/09 00:26	

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W404019

**March 10, 2009 Off-Gas Sample Laboratory Results**

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 Offsite ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-01A  
**Collection Date:** 03/10/09 10:37  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	8900	88	290	ppbv	600	03/24/09 15:16	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	03/20/09 03:34	
1,1,2-Trichloroethane	A	82	10	30	ppbv	60	03/20/09 03:34	
1,1-Dichloroethane	A	1700	42	150	ppbv	300	03/19/09 17:14	
1,1-Dichloroethene	A	56	10	30	ppbv	60	03/20/09 03:34	
1,2-Dichloroethane	A	300	10	30	ppbv	60	03/20/09 03:34	
1,2-Dichloropropane	A	81	8.4	30	ppbv	60	03/20/09 03:34	
2-Butanone	A	3900	36	590	ppbv	300	03/19/09 17:14	
2-Hexanone	A	ND	20	120	ppbv	60	03/20/09 03:34	
4-Methyl-2-Pentanone	A	2000	71	150	ppbv	300	03/19/09 17:14	
Acetone	A	3900	170	590	ppbv	300	03/19/09 17:14	
Benzene	A	3900	36	150	ppbv	300	03/19/09 17:14	
Bromodichloromethane	A	23	9	30	J	ppbv	60	03/20/09 03:34
Bromoform	A	ND	10	30	ppbv	60	03/20/09 03:34	
Bromomethane	A	ND	11	30	ppbv	60	03/20/09 03:34	
Carbon disulfide	A	ND	11	30	ppbv	60	03/20/09 03:34	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	03/20/09 03:34	
Chlorobenzene	A	ND	9.6	30	ppbv	60	03/20/09 03:34	
Chloroethane	A	89	10	30	ppbv	60	03/20/09 03:34	
Chloroform	A	1500	36	150	ppbv	300	03/19/09 17:14	
Chloromethane	A	18	14	120	J	ppbv	60	03/20/09 03:34
cis-1,2-Dichloroethene	A	1300	42	150	ppbv	300	03/19/09 17:14	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	03/20/09 03:34	
Dibromochloromethane	A	ND	10	30	ppbv	60	03/20/09 03:34	
Ethyl benzene	A	3500	53	150	ppbv	300	03/19/09 17:14	
m,p-Xylene	A	14000	180	590	ppbv	600	03/24/09 15:16	
Methylene chloride	A	7600	82	2400	ppbv	600	03/24/09 15:16	
o-Xylene	A	5700	50	150	ppbv	300	03/19/09 17:14	
Styrene	A	140	11	30	ppbv	60	03/20/09 03:34	
Tetrachloroethene	A	5900	50	150	ppbv	300	03/19/09 17:14	
Toluene	A	21000	320	880	ppbv	1000	03/19/09 13:27	
trans-1,2-Dichloroethene	A	22	19	30	J	ppbv	60	03/20/09 03:34
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	03/20/09 03:34	
Trichloroethene	A	5600	48	150	ppbv	300	03/19/09 17:14	
Vinyl chloride	A	170	9	30	ppbv	60	03/20/09 03:34	
Surr: 4-Bromofluorobenzene	S	95.4	0	77.7-127	%REC	60	03/20/09 03:34	

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5/1/09

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-02A  
**Collection Date:** 03/10/09 10:10  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	5800	220	750	ppbv	1,00	03/19/09 22:44	J
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	03/20/09 04:16	
1,1,2-Trichloroethane	A	ND	10	30	ppbv	60	03/20/09 04:16	
1,1-Dichloroethane	A	1000	8.4	30	ppbv	60	03/20/09 04:16	
1,1-Dichloroethene	A	45	10	30	ppbv	60	03/20/09 04:16	
1,2-Dichloroethane	A	110	10	30	ppbv	60	03/20/09 04:16	
1,2-Dichloropropane	A	65	8.4	30	ppbv	60	03/20/09 04:16	
2-Butanone	A	130	7.2	120	ppbv	60	03/20/09 04:16	
2-Hexanone	A	43	20	120	J	ppbv	60	03/20/09 04:16
4-Methyl-2-Pentanone	A	270	14	30	ppbv	60	03/20/09 04:16	
Acetone	A	210	34	120	ppbv	60	03/20/09 04:16	
Benzene	A	870	7.2	30	ppbv	60	03/20/09 04:16	
Bromodichloromethane	A	ND	9	30	ppbv	60	03/20/09 04:16	
Bromoform	A	ND	10	30	ppbv	60	03/20/09 04:16	
Bromomethane	A	ND	11	30	ppbv	60	03/20/09 04:16	
Carbon disulfide	A	ND	11	30	ppbv	60	03/20/09 04:16	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	03/20/09 04:16	
Chlorobenzene	A	71	9.6	30	ppbv	60	03/20/09 04:16	
Chloroethane	A	140	10	30	ppbv	60	03/20/09 04:16	
Chloroform	A	1400	36	150	ppbv	300	03/19/09 17:55	
Chloromethane	A	ND	14	120	ppbv	60	03/20/09 04:16	
cis-1,2-Dichloroethene	A	4700	42	150	ppbv	300	03/19/09 17:55	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	03/20/09 04:16	
Dibromochloromethane	A	ND	10	30	ppbv	60	03/20/09 04:16	
Ethyl benzene	A	1600	54	150	ppbv	300	03/19/09 17:55	
m,p-Xylene	A	6400	90	300	ppbv	300	03/19/09 17:55	
Methylene chloride	A	2300	42	1200	ppbv	300	03/19/09 17:55	
o-Xylene	A	3200	51	150	ppbv	300	03/19/09 17:55	
Styrene	A	26	11	30	J	ppbv	60	03/20/09 04:16
Tetrachloroethene	A	5700	51	150	ppbv	300	03/19/09 17:55	
Toluene	A	5100	270	750	ppbv	1,00	03/19/09 22:44	
trans-1,2-Dichloroethene	A	32	19	30	ppbv	60	03/20/09 04:16	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	03/20/09 04:16	
Trichloroethene	A	3500	48	150	ppbv	300	03/19/09 17:55	
Vinyl chloride	A	370	9	30	ppbv	60	03/20/09 04:16	
Surr: 4-Bromofluorobenzene	S	94.1	0	77.7-127	%REC	60	03/20/09 04:16	

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-03A  
**Collection Date:** 03/10/09 10:18  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS	Method:	TO-15			Prep Date/Time:		Analyst:	MAK
1,1,1-Trichloroethane	A	5900	220	720	ppbv	1,00	03/19/09 23:25	J
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	03/20/09 04:57	
1,1,2-Trichloroethane	A	ND	10	30	ppbv	60	03/20/09 04:57	
1,1-Dichloroethane	A	1100	8.4	30	ppbv	60	03/20/09 04:57	
1,1-Dichloroethene	A	47	10	30	ppbv	60	03/20/09 04:57	
1,2-Dichloroethane	A	110	10	30	ppbv	60	03/20/09 04:57	
1,2-Dichloropropane	A	66	8.4	30	ppbv	60	03/20/09 04:57	
2-Butanone	A	130	7.2	120	ppbv	60	03/20/09 04:57	
2-Hexanone	A	ND	20	120	ppbv	60	03/20/09 04:57	
4-Methyl-2-Pentanone	A	240	14	30	ppbv	60	03/20/09 04:57	
Acetone	A	220	34	120	ppbv	60	03/20/09 04:57	
Benzene	A	860	7.2	30	ppbv	60	03/20/09 04:57	
Bromodichloromethane	A	ND	9	30	ppbv	60	03/20/09 04:57	
Bromoform	A	ND	10	30	ppbv	60	03/20/09 04:57	
Bromomethane	A	ND	11	30	ppbv	60	03/20/09 04:57	
Carbon disulfide	A	ND	11	30	ppbv	60	03/20/09 04:57	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	03/20/09 04:57	
Chlorobenzene	A	ND	9.6	30	ppbv	60	03/20/09 04:57	
Chloroethane	A	150	10	30	ppbv	60	03/20/09 04:57	
Chloroform	A	1400	36	150	ppbv	300	03/19/09 18:36	
Chloromethane	A	ND	14	120	ppbv	60	03/20/09 04:57	
cis-1,2-Dichloroethene	A	4600	42	150	ppbv	300	03/19/09 18:36	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	03/20/09 04:57	
Dibromochloromethane	A	ND	10	30	ppbv	60	03/20/09 04:57	
Ethyl benzene	A	1500	53	150	ppbv	300	03/19/09 18:36	
m,p-Xylene	A	6100	89	300	ppbv	300	03/19/09 18:36	
Methylene chloride	A	2300	42	1200	ppbv	300	03/19/09 18:36	
o-Xylene	A	3000	50	150	ppbv	300	03/19/09 18:36	
Styrene	A	24	11	30	J	ppbv	60	03/20/09 04:57
Tetrachloroethene	A	5700	50	150	ppbv	300	03/19/09 18:36	
Toluene	A	5900	53	150	ppbv	300	03/19/09 18:36	
trans-1,2-Dichloroethene	A	33	19	30	ppbv	60	03/20/09 04:57	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	03/20/09 04:57	
Trichloroethene	A	3500	48	150	ppbv	300	03/19/09 18:36	
Vinyl chloride	A	400	9	30	ppbv	60	03/20/09 04:57	
Surr: 4-Bromofluorobenzene	S	93.3	0	77.7-127	%REC	60	03/20/09 04:57	

18/10/09

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT(DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-04A  
**Collection Date:** 03/10/09 10:43  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method:	TO-15	Prep Date/Time:			Analyst: MAK	
1,1,1-Trichloroethane	A	6000	200	680	ppbv	,00	03/20/09 00:07	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	03/23/09 12:32	
1,1,2-Trichloroethane	A	ND	10	30	ppbv	60	03/23/09 12:32	
1,1-Dichloroethane	A	1100	8.4	30	ppbv	60	03/23/09 12:32	
1,1-Dichloroethene	A	44	10	30	ppbv	60	03/23/09 12:32	
1,2-Dichloroethane	A	120	10	30	ppbv	60	03/23/09 12:32	
1,2-Dichloropropane	A	65	8.4	30	ppbv	60	03/23/09 12:32	
2-Butanone	A	300	7.2	120	ppbv	60	03/23/09 12:32	
2-Hexanone	A	ND	20	120	ppbv	60	03/23/09 12:32	
4-Methyl-2-Pentanone	A	350	14	30	ppbv	60	03/23/09 12:32	
Acetone	A	410	34	120	ppbv	60	03/23/09 12:32	
Benzene	A	1000	7.2	30	ppbv	60	03/23/09 12:32	
Bromodichloromethane	A	ND	9	30	ppbv	60	03/23/09 12:32	
Bromoform	A	ND	10	30	ppbv	60	03/23/09 12:32	
Bromomethane	A	ND	11	30	ppbv	60	03/23/09 12:32	
Carbon disulfide	A	ND	11	30	ppbv	60	03/23/09 12:32	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	03/23/09 12:32	
Chlorobenzene	A	ND	9.6	30	ppbv	60	03/23/09 12:32	
Chloroethane	A	160	10	30	ppbv	60	03/23/09 12:32	
Chloroform	A	1300	36	150	ppbv	300	03/19/09 19:16	
Chloromethane	A	ND	14	120	ppbv	60	03/23/09 12:32	
cis-1,2-Dichloroethene	A	4500	42	150	ppbv	300	03/19/09 19:16	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	03/23/09 12:32	
Dibromochloromethane	A	ND	10	30	ppbv	60	03/23/09 12:32	
Ethyl benzene	A	1500	54	150	ppbv	300	03/19/09 19:16	
m,p-Xylene	A	6200	90	300	ppbv	300	03/19/09 19:16	
Methylene chloride	A	2600	42	1200	ppbv	300	03/19/09 19:16	
o-Xylene	A	2900	51	150	ppbv	300	03/19/09 19:16	
Styrene	A	30	11	30	ppbv	60	03/23/09 12:32	
Tetrachloroethene	A	5500	51	150	ppbv	300	03/19/09 19:16	
Toluene	A	7000	240	680	ppbv	,00	03/20/09 00:07	
trans-1,2-Dichloroethene	A	31	19	30	ppbv	60	03/23/09 12:32	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	03/23/09 12:32	
Trichloroethene	A	3500	48	150	ppbv	300	03/19/09 19:16	
Vinyl chloride	A	370	9	30	ppbv	60	03/23/09 12:32	
Surr: 4-Bromofluorobenzene	S	94.9	0	77.7-127	%REC	60	03/23/09 12:32	J

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-05A  
**Collection Date:** 03/10/09 11:10  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	59	0.74	2.5	ppbv	5	03/19/09 21:20	
1,1,2,2-Tetrachloroethane	A	ND	0.22	0.50	ppbv	1	03/23/09 14:41	
1,1,2-Trichloroethane	A	0.46	0.17	0.50	J ppbv	1	03/23/09 14:41	
1,1-Dichloroethane	A	12	0.14	0.50	ppbv	1	03/23/09 14:41	
1,1-Dichloroethene	A	43	0.84	2.5	ppbv	5	03/19/09 21:20	
1,2-Dichloroethane	A	2.0	0.17	0.50	ppbv	1	03/23/09 14:41	
1,2-Dichloropropane	A	ND	0.14	0.50	ppbv	1	03/23/09 14:41	
2-Butanone	A	19	0.12	2.0	ppbv	1	03/23/09 14:41	
2-Hexanone	A	0.53	0.34	2.0	J ppbv	1	03/23/09 14:41	
4-Methyl-2-Pentanone	A	10	0.24	0.50	ppbv	1	03/23/09 14:41	
Acetone	A	27	2.8	9.9	ppbv	5	03/19/09 21:20	
Benzene	A	33	0.59	2.5	ppbv	5	03/19/09 21:20	
Bromodichloromethane	A	ND	0.15	0.50	ppbv	1	03/23/09 14:41	
Bromoform	A	ND	0.17	0.50	ppbv	1	03/23/09 14:41	
Bromomethane	A	ND	0.19	0.50	ppbv	1	03/23/09 14:41	
Carbon disulfide	A	ND	0.18	0.50	ppbv	1	03/23/09 14:41	
Carbon tetrachloride	A	ND	0.16	0.50	ppbv	1	03/23/09 14:41	
Chlorobenzene	A	ND	0.16	0.50	ppbv	1	03/23/09 14:41	
Chloroethane	A	0.66	0.17	0.50	ppbv	1	03/23/09 14:41	
Chloroform	A	12	0.12	0.50	ppbv	1	03/23/09 14:41	
Chloromethane	A	1.2	0.23	2.0	J ppbv	1	03/23/09 14:41	
cis-1,2-Dichloroethene	A	29	0.69	2.5	ppbv	5	03/19/09 21:20	
cis-1,3-Dichloropropene	A	ND	0.14	0.50	ppbv	1	03/23/09 14:41	
Dibromochloromethane	A	ND	0.17	0.50	ppbv	1	03/23/09 14:41	
Ethyl benzene	A	17	0.18	0.50	ppbv	1	03/23/09 14:41	
m,p-Xylene	A	80	1.5	5.0	ppbv	5	03/19/09 21:20	
Methylene chloride	A	54	0.69	20	ppbv	5	03/19/09 21:20	
o-Xylene	A	32	0.84	2.5	ppbv	5	03/19/09 21:20	
Styrene	A	5.7	0.19	0.50	ppbv	1	03/23/09 14:41	
Tetrachloroethene	A	73	0.84	2.5	ppbv	5	03/19/09 21:20	
Toluene	A	120	7.5	21	ppbv	50	03/20/09 02:11	J
trans-1,2-Dichloroethene	A	7.7	0.31	0.50	ppbv	1	03/23/09 14:41	
trans-1,3-Dichloropropene	A	ND	0.12	0.50	ppbv	1	03/23/09 14:41	
Trichloroethene	A	50	0.79	2.5	ppbv	5	03/19/09 21:20	
Vinyl chloride	A	0.50	0.15	0.50	ppbv	1	03/23/09 14:41	
Surr: 4-Bromofluorobenzene	S	91.9	0	77.7-127	%REC	1	03/23/09 14:41	

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-06A  
**Collection Date:** 03/10/09 11:26  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	7100	190	640	ppbv	,00	03/20/09 00:48	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	03/23/09 13:15	
1,1,2-Trichloroethane	A	74	10	30	ppbv	60	03/23/09 13:15	
1,1-Dichloroethane	A	1700	42	150	ppbv	300	03/19/09 19:58	
1,1-Dichloroethene	A	50	10	30	ppbv	60	03/23/09 13:15	
1,2-Dichloroethane	A	290	10	30	ppbv	60	03/23/09 13:15	
1,2-Dichloropropane	A	79	8.4	30	ppbv	60	03/23/09 13:15	
2-Butanone	A	3400	36	590	ppbv	300	03/19/09 19:58	
2-Hexanone	A	ND	20	120	ppbv	60	03/23/09 13:15	
4-Methyl-2-Pentanone	A	1700	71	150	ppbv	300	03/19/09 19:58	
Acetone	A	3600	170	590	ppbv	300	03/19/09 19:58	
Benzene	A	3700	36	150	ppbv	300	03/19/09 19:58	
Bromodichloromethane	A	ND	9	30	ppbv	60	03/23/09 13:15	
Bromoform	A	ND	10	30	ppbv	60	03/23/09 13:15	
Bromomethane	A	ND	11	30	ppbv	60	03/23/09 13:15	
Carbon disulfide	A	ND	11	30	ppbv	60	03/23/09 13:15	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	03/23/09 13:15	
Chlorobenzene	A	ND	9.6	30	ppbv	60	03/23/09 13:15	
Chloroethane	A	140	10	30	ppbv	60	03/23/09 13:15	
Chloroform	A	1400	36	150	ppbv	300	03/19/09 19:58	
Chloromethane	A	ND	14	120	ppbv	60	03/23/09 13:15	
cis-1,2-Dichloroethene	A	1900	42	150	ppbv	300	03/19/09 19:58	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	03/23/09 13:15	
Dibromochloromethane	A	ND	10	30	ppbv	60	03/23/09 13:15	
Ethyl benzene	A	3300	53	150	ppbv	300	03/19/09 19:58	
m,p-Xylene	A	11000	390	1300	ppbv	,00	03/20/09 00:48	
Methylene chloride	A	6200	180	5200	ppbv	,00	03/20/09 00:48	
o-Xylene	A	5400	50	150	ppbv	300	03/19/09 19:58	
Styrene	A	140	11	30	ppbv	60	03/23/09 13:15	
Tetrachloroethene	A	5500	50	150	ppbv	300	03/19/09 19:58	
Toluene	A	20000	230	640	ppbv	,00	03/20/09 00:48	
trans-1,2-Dichloroethene	A	22	19	30	J	ppbv	60	03/23/09 13:15
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	03/23/09 13:15	
Trichloroethene	A	5200	48	150	ppbv	300	03/19/09 19:58	
Vinyl chloride	A	190	9	30	ppbv	60	03/23/09 13:15	
Surr: 4-Bromofluorobenzene	S	98.9	0	77.7-127	%REC	60	03/23/09 13:15	

51109

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-07A  
**Collection Date:** 03/10/09 11:50  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method: TO-15	Prep Date/Time:			Analyst: MAK		
1,1,1-Trichloroethane	A	7200	200	680	ppbv	,00	03/20/09 01:30	
1,1,2,2-Tetrachloroethane	A	ND	13	30	ppbv	60	03/23/09 13:58	
1,1,2-Trichloroethane	A	73	10	30	ppbv	60	03/23/09 13:58	
1,1-Dichloroethane	A	1700	42	150	ppbv	300	03/19/09 20:39	
1,1-Dichloroethene	A	49	10	30	ppbv	60	03/23/09 13:58	
1,2-Dichloroethane	A	280	10	30	ppbv	60	03/23/09 13:58	
1,2-Dichloropropane	A	78	8.4	30	ppbv	60	03/23/09 13:58	
2-Butanone	A	3300	36	590	ppbv	300	03/19/09 20:39	
2-Hexanone	A	ND	20	120	ppbv	60	03/23/09 13:58	
4-Methyl-2-Pentanone	A	1700	71	150	ppbv	300	03/19/09 20:39	
Acetone	A	3200	170	590	ppbv	300	03/19/09 20:39	
Benzene	A	3700	36	150	ppbv	300	03/19/09 20:39	
Bromodichloromethane	A	ND	9	30	ppbv	60	03/23/09 13:58	
Bromoform	A	ND	10	30	ppbv	60	03/23/09 13:58	
Bromomethane	A	ND	11	30	ppbv	60	03/23/09 13:58	
Carbon disulfide	A	ND	11	30	ppbv	60	03/23/09 13:58	
Carbon tetrachloride	A	ND	9.6	30	ppbv	60	03/23/09 13:58	
Chlorobenzene	A	ND	9.6	30	ppbv	60	03/23/09 13:58	
Chloroethane	A	130	10	30	ppbv	60	03/23/09 13:58	
Chloroform	A	1400	36	150	ppbv	300	03/19/09 20:39	
Chloromethane	A	ND	14	120	ppbv	60	03/23/09 13:58	
cis-1,2-Dichloroethene	A	1800	42	150	ppbv	300	03/19/09 20:39	
cis-1,3-Dichloropropene	A	ND	8.4	30	ppbv	60	03/23/09 13:58	
Dibromochloromethane	A	ND	10	30	ppbv	60	03/23/09 13:58	
Ethyl benzene	A	3200	53	150	ppbv	300	03/19/09 20:39	
m,p-Xylene	A	10000	400	1400	ppbv	,00	03/20/09 01:30	
Methylene chloride	A	6300	190	5400	ppbv	,00	03/20/09 01:30	
o-Xylene	A	5100	50	150	ppbv	300	03/19/09 20:39	
Styrene	A	140	11	30	ppbv	60	03/23/09 13:58	
Tetrachloroethene	A	5500	50	150	ppbv	300	03/19/09 20:39	
Toluene	A	19000	240	680	ppbv	,00	03/20/09 01:30	J
trans-1,2-Dichloroethene	A	21	19	30	ppbv	60	03/23/09 13:58	
trans-1,3-Dichloropropene	A	ND	7.2	30	ppbv	60	03/23/09 13:58	
Trichloroethene	A	5200	48	150	ppbv	300	03/19/09 20:39	
Vinyl chloride	A	170	9	30	ppbv	60	03/23/09 13:58	
Surr: 4-Bromofluorobenzene	S	98.4	0	77.7-127	%REC	60	03/23/09 13:58	

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-08A  
**Collection Date:** 03/10/09 11:35  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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TOXIC ORGANICS IN AIR BY GC/MS		Method:	TO-15		Prep Date/Time:		Analyst: MAK	
1,1,1-Trichloroethane	A	200	2.8	9.3	ppbv	20	03/24/09 15:57	
1,1,2,2-Tetrachloroethane	A	ND	0.22	0.50	ppbv	1	03/23/09 15:25	
1,1,2-Trichloroethane	A	2.2	0.17	0.50	ppbv	1	03/23/09 15:25	
1,1-Dichloroethane	A	49	0.69	2.5	ppbv	5	03/19/09 22:01	
1,1-Dichloroethene	A	73	0.84	2.5	ppbv	5	03/19/09 22:01	
1,2-Dichloroethane	A	7.6	0.17	0.50	ppbv	1	03/23/09 15:25	
1,2-Dichloropropane	A	1.9	0.14	0.50	ppbv	1	03/23/09 15:25	
2-Butanone	A	65	0.59	9.9	ppbv	5	03/19/09 22:01	
2-Hexanone	A	1.2	0.34	2.0	J	ppbv	1	03/23/09 15:25
4-Methyl-2-Pentanone	A	25	1.2	2.5	ppbv	5	03/19/09 22:01	
Acetone	A	52	10	37	ppbv	20	03/24/09 15:57	
Benzene	A	130	2.2	9.3	ppbv	20	03/24/09 15:57	
Bromodichloromethane	A	ND	0.15	0.50	ppbv	1	03/23/09 15:25	
Bromoform	A	ND	0.17	0.50	ppbv	1	03/23/09 15:25	
Bromomethane	A	ND	0.19	0.50	ppbv	1	03/23/09 15:25	
Carbon disulfide	A	ND	0.18	0.50	ppbv	1	03/23/09 15:25	
Carbon tetrachloride	A	0.39	0.16	0.50	J	ppbv	1	03/23/09 15:25
Chlorobenzene	A	2.2	0.16	0.50	ppbv	1	03/23/09 15:25	
Chloroethane	A	2.0	0.17	0.50	ppbv	1	03/23/09 15:25	
Chloroform	A	44	0.59	2.5	ppbv	5	03/19/09 22:01	
Chloromethane	A	3.8	0.23	2.0	ppbv	1	03/23/09 15:25	
cis-1,2-Dichloroethene	A	55	0.69	2.5	ppbv	5	03/19/09 22:01	
cis-1,3-Dichloropropene	A	ND	0.14	0.50	ppbv	1	03/23/09 15:25	
Dibromochloromethane	A	ND	0.17	0.50	ppbv	1	03/23/09 15:25	
Ethyl benzene	A	63	0.89	2.5	ppbv	5	03/19/09 22:01	
m,p-Xylene	A	190	5.6	19	ppbv	20	03/24/09 15:57	
Methylene chloride	A	190	2.6	74	ppbv	20	03/24/09 15:57	
o-Xylene	A	91	0.84	2.5	ppbv	5	03/19/09 22:01	
Styrene	A	33	0.94	2.5	ppbv	5	03/19/09 22:01	
Tetrachloroethene	A	150	3.2	9.3	ppbv	20	03/24/09 15:57	
Toluene	A	400	7.5	21	ppbv	50	03/24/09 16:43	
trans-1,2-Dichloroethene	A	7.3	0.31	0.50	ppbv	1	03/23/09 15:25	
trans-1,3-Dichloropropene	A	ND	0.12	0.50	ppbv	1	03/23/09 15:25	
Trichloroethene	A	130	3	9.3	ppbv	20	03/24/09 15:57	
Vinyl chloride	A	18	0.15	0.50	ppbv	1	03/23/09 15:25	
Surr: 4-Bromofluorobenzene	S	97.3	0	77.7-127	%REC	1	03/23/09 15:25	

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 Offsite ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-01B  
**Collection Date:** 03/10/09 10:37  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD	Prep Date/Time: 03/17/09 12:33 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
1,2-Dichlorobenzene	A	2.6	0.7	10	J	µg, Total	1	03/21/09 00:22
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	03/21/09 00:22
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	03/21/09 00:22
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	03/21/09 00:22
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	03/21/09 00:22
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	03/21/09 00:22
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	03/21/09 00:22
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	03/21/09 00:22
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	03/21/09 00:22
2-Methylnaphthalene	A	1.5	0.9	10	J	µg, Total	1	03/21/09 00:22
2-Methylphenol	A	ND	0.7	10		µg, Total	1	03/21/09 00:22
2-Nitroaniline	A	ND	1	50		µg, Total	1	03/21/09 00:22
2-Nitrophenol	A	ND	1	10		µg, Total	1	03/21/09 00:22
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	03/21/09 00:22
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	03/21/09 00:22
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	03/21/09 00:22
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	03/21/09 00:22
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	03/21/09 00:22
4-Chloroaniline	A	ND	1	10		µg, Total	1	03/21/09 00:22
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	03/21/09 00:22
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	03/21/09 00:22
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	03/21/09 00:22
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	03/21/09 00:22
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	03/21/09 00:22
Carbazole	A	ND	1.2	10		µg, Total	1	03/21/09 00:22
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	03/21/09 00:22
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	03/21/09 00:22
Dibenzofuran	A	ND	0.8	10		µg, Total	1	03/21/09 00:22
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	03/21/09 00:22
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	03/21/09 00:22
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	03/21/09 00:22

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**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #1 Offsite ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-01B  
**Collection Date:** 03/10/09 10:37  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
		A	ND	0.9	10	ug, Total	1	03/21/09 00:22
Hexachlorobutadiene		A	ND	0.6	10	ug, Total	1	03/21/09 00:22
Hexachlorocyclopentadiene		A	ND	0.9	10	ug, Total	1	03/21/09 00:22
Isophorone		A	3	1	10	J ug, Total	1	03/21/09 00:22
N-Nitrosodi-n-propylamine		A	ND	1	10	ug, Total	1	03/21/09 00:22
N-Nitrosodiphenylamine		A	ND	0.7	10	ug, Total	1	03/21/09 00:22
Nitrobenzene		A	ND	1	10	ug, Total	1	03/21/09 00:22
Pentachlorophenol		A	ND	1.3	50	ug, Total	1	03/21/09 00:22
Phenol		A	ND	0.4	10	ug, Total	1	03/21/09 00:22
<i>Surr: 2,4,6-Tribromophenol</i>		S	74.1	0	39.4-112	%REC	1	03/21/09 00:22
<i>Surr: 2-Fluorobiphenyl</i>		S	53.5	0	21.6-123	%REC	1	03/21/09 00:22
<i>Surr: 2-Fluorophenol</i>		S	63.6	0	27.7-78	%REC	1	03/21/09 00:22
<i>Surr: Nitrobenzene-d5</i>		S	55.1	0	36.9-89.6	%REC	1	03/21/09 00:22
<i>Surr: Phenol-d5</i>		S	63.4	0	46.1-73.5	%REC	1	03/21/09 00:22
<i>Surr: Terphenyl-d14</i>		S	52.7	0	55.8-111	S %REC	1	03/21/09 00:22

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
		A	ND	0.21	1.0	ug, Total	1	03/21/09 00:22
Acenaphthene		A	ND	0.22	1.0	ug, Total	1	03/21/09 00:22
Acenaphthylene		A	ND	0.27	1.0	ug, Total	1	03/21/09 00:22
Anthracene		A	ND	0.47	1.0	ug, Total	1	03/21/09 00:22
Benzo[a]anthracene		A	ND	0.38	1.0	ug, Total	1	03/21/09 00:22
Benzo[a]pyrene		A	ND	0.44	1.0	ug, Total	1	03/21/09 00:22
Benzo[b]fluoranthene		A	ND	0.72	1.0	ug, Total	1	03/21/09 00:22
Benzo[g,h,i]perylene		A	ND	0.8	1.0	ug, Total	1	03/21/09 00:22
Chrysene		A	ND	0.57	1.0	ug, Total	1	03/21/09 00:22
Dibenz[a,h]anthracene		A	ND	0.54	1.0	ug, Total	1	03/21/09 00:22
Fluoranthene		A	ND	0.39	1.0	ug, Total	1	03/21/09 00:22
Fluorene		A	ND	0.25	1.0	ug, Total	1	03/21/09 00:22
Indeno[1,2,3cd]pyrene		A	ND	0.56	1.0	ug, Total	1	03/21/09 00:22
Naphthalene		A	7.2	0.16	1.0	ug, Total	1	03/21/09 00:22
Phenanthrene		A	ND	0.27	1.0	ug, Total	1	03/21/09 00:22
Pyrene		A	ND	0.44	1.0	ug, Total	1	03/21/09 00:22
<i>Surr: Nitrobenzene-d5</i>		S	55.1	0	36.9-89.6	%REC	1	03/21/09 00:22
<i>Surr: 2-Fluorobiphenyl</i>		S	53.5	0	21.6-123	%REC	1	03/21/09 00:22
<i>Surr: Terphenyl-d14</i>		S	52.7	0	55.8-111	S %REC	1	03/21/09 00:22

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**Microbac**
**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-02B  
**Collection Date:** 03/10/09 10:10  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
1,2,4-Trichlorobenzene		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
1,2-Dichlorobenzene		A	1.3	0.7	10	J ug, Total	1	03/21/09 00:46
1,3-Dichlorobenzene		A	ND	0.8	10	ug, Total	1	03/21/09 00:46
1,4-Dichlorobenzene		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
2,4,5-Trichlorophenol		A	ND	1.5	10	ug, Total	1	03/21/09 00:46
2,4,6-Trichlorophenol		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
2,4-Dichlorophenol		A	ND	0.7	10	ug, Total	1	03/21/09 00:46
2,4-Dimethylphenol		A	ND	0.8	10	ug, Total	1	03/21/09 00:46
2,4-Dinitrophenol		A	ND	9.4	50	ug, Total	1	03/21/09 00:46
2,4-Dinitrotoluene		A	ND	0.8	10	ug, Total	1	03/21/09 00:46
2,6-Dinitrotoluene		A	ND	1.1	10	ug, Total	1	03/21/09 00:46
2-Chloronaphthalene		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
2-Chlorophenol		A	ND	0.7	10	ug, Total	1	03/21/09 00:46
2-Methylnaphthalene		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
2-Methylphenol		A	ND	0.7	10	ug, Total	1	03/21/09 00:46
2-Nitroaniline		A	ND	1	50	ug, Total	1	03/21/09 00:46
2-Nitrophenol		A	ND	1	10	ug, Total	1	03/21/09 00:46
3,3'-Dichlorobenzidine		A	ND	0.7	50	ug, Total	1	03/21/09 00:46
3-Nitroaniline		A	ND	1.3	50	ug, Total	1	03/21/09 00:46
3/4-Methylphenol		A	ND	0.8	10	ug, Total	1	03/21/09 00:46
4,6-Dinitro-2-methylphenol		A	ND	1.1	50	ug, Total	1	03/21/09 00:46
4-Bromophenyl phenyl ether		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
4-Chloro-3-methylphenol		A	ND	1.2	20	ug, Total	1	03/21/09 00:46
4-Chloroaniline		A	ND	1	10	ug, Total	1	03/21/09 00:46
4-Chlorophenyl phenyl ether		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
4-Nitroaniline		A	ND	1.7	50	ug, Total	1	03/21/09 00:46
4-Nitrophenol		A	ND	4.3	50	ug, Total	1	03/21/09 00:46
Bis(2-chloroethoxy)methane		A	ND	1	10	ug, Total	1	03/21/09 00:46
Bis(2-chloroethyl)ether		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
Bis(2-chloroisopropyl)ether		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
Bis(2-ethylhexyl)phthalate		A	ND	1.1	10	ug, Total	1	03/21/09 00:46
Butyl benzyl phthalate		A	ND	1	10	ug, Total	1	03/21/09 00:46
Carbazole		A	ND	1.2	10	ug, Total	1	03/21/09 00:46
Di-n-butyl phthalate		A	ND	1.2	10	ug, Total	1	03/21/09 00:46
Di-n-octyl phthalate		A	ND	1.1	10	ug, Total	1	03/21/09 00:46
Dibenzofuran		A	ND	0.8	10	ug, Total	1	03/21/09 00:46
Diethyl phthalate		A	ND	1.1	10	ug, Total	1	03/21/09 00:46
Dimethyl phthalate		A	ND	0.9	10	ug, Total	1	03/21/09 00:46
Hexachlorobenzene		A	ND	0.9	10	ug, Total	1	03/21/09 00:46

250 West 84th Drive, Merrillville, IN 46410 TEL.800.536.8379 TEL.219.769.8378 FAX.219.769.1664

5/10/09

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #2 SBPA ISVE  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-02B  
**Collection Date:** 03/10/09 10:10  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	03/21/09 00:46
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	03/21/09 00:46
Hexachloroethane	A	ND	0.9	10		µg, Total	1	03/21/09 00:46
Isophorone	A	ND	1	10		µg, Total	1	03/21/09 00:46
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	03/21/09 00:46
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	03/21/09 00:46
Nitrobenzene	A	ND	1	10		µg, Total	1	03/21/09 00:46
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	03/21/09 00:46
Phenol	A	ND	0.4	10		µg, Total	1	03/21/09 00:46
Surr: 2,4,6-Tribromophenol	S	78.0	0	39.4-112		%REC	1	03/21/09 00:46
Surr: 2-Fluorobiphenyl	S	61.2	0	21.6-123		%REC	1	03/21/09 00:46
Surr: 2-Fluorophenol	S	62.8	0	27.7-78		%REC	1	03/21/09 00:46
Surr: Nitrobenzene-d5	S	56.6	0	36.9-89.6		%REC	1	03/21/09 00:46
Surr: Phenol-d5	S	58.2	0	46.1-73.5		%REC	1	03/21/09 00:46
Surr: Terphenyl-d14	S	54.4	0	55.8-111	S	%REC	1	03/21/09 00:46

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	03/21/09 00:46
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	03/21/09 00:46
Anthracene	A	ND	0.27	1.0		µg, Total	1	03/21/09 00:46
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	03/21/09 00:46
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	03/21/09 00:46
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	03/21/09 00:46
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	03/21/09 00:46
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	03/21/09 00:46
Chrysene	A	ND	0.57	1.0		µg, Total	1	03/21/09 00:46
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	03/21/09 00:46
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	03/21/09 00:46
Fluorene	A	ND	0.25	1.0		µg, Total	1	03/21/09 00:46
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	03/21/09 00:46
Naphthalene	A	1.7	0.16	1.0		µg, Total	1	03/21/09 00:46
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	03/21/09 00:46
Pyrene	A	ND	0.44	1.0		µg, Total	1	03/21/09 00:46
Surr: Nitrobenzene-d5	S	56.6	0	36.9-89.6		%REC	1	03/21/09 00:46
Surr: 2-Fluorobiphenyl	S	61.2	0	21.6-123		%REC	1	03/21/09 00:46
Surr: Terphenyl-d14	S	54.4	0	55.8-111	S	%REC	1	03/21/09 00:46

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-03B  
**Collection Date:** 03/10/09 10:18  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD		Prep Date/Time: 03/17/09 12:33				Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
1,2-Dichlorobenzene	A	ND	0.7	10		ug, Total	1	03/21/09 01:10
1,3-Dichlorobenzene	A	ND	0.8	10		ug, Total	1	03/21/09 01:10
1,4-Dichlorobenzene	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
2,4,5-Trichlorophenol	A	ND	1.5	10		ug, Total	1	03/21/09 01:10
2,4,6-Trichlorophenol	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
2,4-Dichlorophenol	A	ND	0.7	10		ug, Total	1	03/21/09 01:10
2,4-Dimethylphenol	A	ND	0.8	10		ug, Total	1	03/21/09 01:10
2,4-Dinitrophenol	A	ND	9.4	50		ug, Total	1	03/21/09 01:10
2,4-Dinitrotoluene	A	ND	0.8	10		ug, Total	1	03/21/09 01:10
2,6-Dinitrotoluene	A	ND	1.1	10		ug, Total	1	03/21/09 01:10
2-Chloronaphthalene	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
2-Chlorophenol	A	ND	0.7	10		ug, Total	1	03/21/09 01:10
2-Methylnaphthalene	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
2-Methylphenol	A	ND	0.7	10		ug, Total	1	03/21/09 01:10
2-Nitroaniline	A	ND	1	50		ug, Total	1	03/21/09 01:10
2-Nitrophenol	A	ND	1	10		ug, Total	1	03/21/09 01:10
3,3'-Dichlorobenzidine	A	ND	0.7	50		ug, Total	1	03/21/09 01:10
3-Nitroaniline	A	ND	1.3	50		ug, Total	1	03/21/09 01:10
3/4-Methylphenol	A	ND	0.8	10		ug, Total	1	03/21/09 01:10
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		ug, Total	1	03/21/09 01:10
4-Bromophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
4-Chloro-3-methylphenol	A	ND	1.2	20		ug, Total	1	03/21/09 01:10
4-Chloroaniline	A	ND	1	10		ug, Total	1	03/21/09 01:10
4-Chlorophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
4-Nitroaniline	A	ND	1.7	50		ug, Total	1	03/21/09 01:10
4-Nitrophenol	A	ND	4.3	50		ug, Total	1	03/21/09 01:10
Bis(2-chloroethoxy)methane	A	ND	1	10		ug, Total	1	03/21/09 01:10
Bis(2-chloroethyl)ether	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
Bis(2-ethylhexyl)phthalate	A	1.6	1.1	10	J	ug, Total	1	03/21/09 01:10
Butyl benzyl phthalate	A	ND	1	10		ug, Total	1	03/21/09 01:10
Carbazole	A	ND	1.2	10		ug, Total	1	03/21/09 01:10
Di-n-butyl phthalate	A	ND	1.2	10		ug, Total	1	03/21/09 01:10
Di-n-octyl phthalate	A	ND	1.1	10		ug, Total	1	03/21/09 01:10
Dibenzofuran	A	ND	0.8	10		ug, Total	1	03/21/09 01:10
Diethyl phthalate	A	ND	1.1	10		ug, Total	1	03/21/09 01:10
Dimethyl phthalate	A	ND	0.9	10		ug, Total	1	03/21/09 01:10
Hexachlorobenzene	A	ND	0.9	10		ug, Total	1	03/21/09 01:10

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #3 TOX 1 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-03B  
**Collection Date:** 03/10/09 10:18  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	03/21/09 01:10
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	03/21/09 01:10
Hexachloroethane	A	ND	0.9	10		µg, Total	1	03/21/09 01:10
Isophorone	A	ND	1	10		µg, Total	1	03/21/09 01:10
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	03/21/09 01:10
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	03/21/09 01:10
Nitrobenzene	A	ND	1	10		µg, Total	1	03/21/09 01:10
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	03/21/09 01:10
Phenol	A	ND	0.4	10		µg, Total	1	03/21/09 01:10
Surr: 2,4,6-Tribromophenol	S	80.7	0	39.4-112		%REC	1	03/21/09 01:10
Surr: 2-Fluorobiphenyl	S	62.4	0	21.6-123		%REC	1	03/21/09 01:10
Surr: 2-Fluorophenol	S	69.2	0	27.7-78		%REC	1	03/21/09 01:10
Surr: Nitrobenzene-d5	S	56.3	0	36.9-89.6		%REC	1	03/21/09 01:10
Surr: Phenol-d5	S	67.1	0	46.1-73.5		%REC	1	03/21/09 01:10
Surr: Terphenyl-d14	S	51.8	0	55.8-111	S	%REC	1	03/21/09 01:10

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	03/21/09 01:10
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	03/21/09 01:10
Anthracene	A	ND	0.27	1.0		µg, Total	1	03/21/09 01:10
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	03/21/09 01:10
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	03/21/09 01:10
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	03/21/09 01:10
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	03/21/09 01:10
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	03/21/09 01:10
Chrysene	A	ND	0.57	1.0		µg, Total	1	03/21/09 01:10
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	03/21/09 01:10
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	03/21/09 01:10
Fluorene	A	ND	0.25	1.0		µg, Total	1	03/21/09 01:10
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	03/21/09 01:10
Naphthalene	A	ND	0.16	1.0		µg, Total	1	03/21/09 01:10
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	03/21/09 01:10
Pyrene	A	ND	0.44	1.0		µg, Total	1	03/21/09 01:10
Surr: Nitrobenzene-d5	S	56.3	0	36.9-89.6		%REC	1	03/21/09 01:10
Surr: 2-Fluorobiphenyl	S	62.4	0	21.6-123		%REC	1	03/21/09 01:10
Surr: Terphenyl-d14	S	51.8	0	55.8-111	S	%REC	1	03/21/09 01:10

8/1/09

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT(DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-04B  
**Collection Date:** 03/10/09 10:43  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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<b>SEMI-VOLATILE ORGANIC ANALYTE</b>		Method:	Prep Date/Time: 03/17/09 12:33 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	03/21/09 01:34
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	03/21/09 01:34
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	03/21/09 01:34
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	03/21/09 01:34
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	03/21/09 01:34
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	03/21/09 01:34
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	03/21/09 01:34
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	03/21/09 01:34
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	03/21/09 01:34
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
2-Methylphenol	A	ND	0.7	10		µg, Total	1	03/21/09 01:34
2-Nitroaniline	A	ND	1	50		µg, Total	1	03/21/09 01:34
2-Nitrophenol	A	ND	1	10		µg, Total	1	03/21/09 01:34
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	03/21/09 01:34
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	03/21/09 01:34
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	03/21/09 01:34
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	03/21/09 01:34
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	03/21/09 01:34
4-Chloroaniline	A	ND	1	10		µg, Total	1	03/21/09 01:34
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	03/21/09 01:34
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	03/21/09 01:34
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	03/21/09 01:34
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
Bis(2-ethylhexyl)phthalate	A	2.2	1.1	10	J	µg, Total	1	03/21/09 01:34
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	03/21/09 01:34
Carbazole	A	ND	1.2	10		µg, Total	1	03/21/09 01:34
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	03/21/09 01:34
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	03/21/09 01:34
Dibenzofuran	A	ND	0.8	10		µg, Total	1	03/21/09 01:34
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	03/21/09 01:34
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	03/21/09 01:34

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## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #4 TOX 1 INFLUENT(DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-04B  
**Collection Date:** 03/10/09 10:43  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	03/21/09 01:34
Hexachloroethane	A	ND	0.9	10		µg, Total	1	03/21/09 01:34
Isophorone	A	ND	1	10		µg, Total	1	03/21/09 01:34
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	03/21/09 01:34
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	03/21/09 01:34
Nitrobenzene	A	ND	1	10		µg, Total	1	03/21/09 01:34
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	03/21/09 01:34
Phenol	A	ND	0.4	10		µg, Total	1	03/21/09 01:34
Surr: 2,4,6-Tribromophenol	S	71.7	0	39.4-112		%REC	1	03/21/09 01:34
Surr: 2-Fluorobiphenyl	S	58.8	0	21.6-123		%REC	1	03/21/09 01:34
Surr: 2-Fluorophenol	S	67.3	0	27.7-78		%REC	1	03/21/09 01:34
Surr: Nitrobenzene-d5	S	52.7	0	36.9-89.6		%REC	1	03/21/09 01:34
Surr: Phenol-d5	S	62.9	0	46.1-73.5		%REC	1	03/21/09 01:34
Surr: Terphenyl-d14	S	48.8	0	55.8-111	S	%REC	1	03/21/09 01:34

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	03/21/09 01:34
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	03/21/09 01:34
Anthracene	A	ND	0.27	1.0		µg, Total	1	03/21/09 01:34
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	03/21/09 01:34
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	03/21/09 01:34
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	03/21/09 01:34
Benzo[g,h,i]perylene	A	1.6	0.72	1.0		µg, Total	1	03/21/09 01:34
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	03/21/09 01:34
Chrysene	A	ND	0.57	1.0		µg, Total	1	03/21/09 01:34
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	03/21/09 01:34
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	03/21/09 01:34
Fluorene	A	ND	0.25	1.0		µg, Total	1	03/21/09 01:34
Indeno[1,2,3cd]pyrene	A	1.3	0.56	1.0		µg, Total	1	03/21/09 01:34
Naphthalene	A	0.75	0.16	1.0	J	µg, Total	1	03/21/09 01:34
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	03/21/09 01:34
Pyrene	A	ND	0.44	1.0		µg, Total	1	03/21/09 01:34
Surr: Nitrobenzene-d5	S	52.7	0	36.9-89.6		%REC	1	03/21/09 01:34
Surr: 2-Fluorobiphenyl	S	58.8	0	21.6-123		%REC	1	03/21/09 01:34
Surr: Terphenyl-d14	S	48.8	0	55.8-111	S	%REC	1	03/21/09 01:34

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-05B  
**Collection Date:** 03/10/09 11:10  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method:	Prep Date/Time: 03/17/09 12:33 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	03/23/09 20:19
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	03/23/09 20:19
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	03/23/09 20:19
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	03/23/09 20:19
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	03/23/09 20:19
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	03/23/09 20:19
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	03/23/09 20:19
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	03/23/09 20:19
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	03/23/09 20:19
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
2-Methylphenol	A	ND	0.7	10		µg, Total	1	03/23/09 20:19
2-Nitroaniline	A	ND	1	50		µg, Total	1	03/23/09 20:19
2-Nitrophenol	A	ND	1	10		µg, Total	1	03/23/09 20:19
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	03/23/09 20:19
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	03/23/09 20:19
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	03/23/09 20:19
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	03/23/09 20:19
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	03/23/09 20:19
4-Chloroaniline	A	ND	1	10		µg, Total	1	03/23/09 20:19
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	03/23/09 20:19
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	03/23/09 20:19
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	03/23/09 20:19
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	03/23/09 20:19
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	03/23/09 20:19
Carbazole	A	ND	1.2	10		µg, Total	1	03/23/09 20:19
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	03/23/09 20:19
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	03/23/09 20:19
Dibenzofuran	A	ND	0.8	10		µg, Total	1	03/23/09 20:19
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	03/23/09 20:19
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	03/23/09 20:19
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	03/23/09 20:19

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #5 TOX 1 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-05B  
**Collection Date:** 03/10/09 11:10  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		ug, Total	1	03/23/09 20:19
Hexachlorocyclopentadiene	A	ND	0.6	10		ug, Total	1	03/23/09 20:19
Hexachloroethane	A	ND	0.9	10		ug, Total	1	03/23/09 20:19
Isophorone	A	ND	1	10		ug, Total	1	03/23/09 20:19
N-Nitrosodi-n-propylamine	A	ND	1	10		ug, Total	1	03/23/09 20:19
N-Nitrosodiphenylamine	A	ND	0.7	10		ug, Total	1	03/23/09 20:19
Nitrobenzene	A	ND	1	10		ug, Total	1	03/23/09 20:19
Pentachlorophenol	A	ND	1.3	50		ug, Total	1	03/23/09 20:19
Phenol	A	ND	0.4	10		ug, Total	1	03/23/09 20:19
Surr: 2,4,6-Tribromophenol	S	73.6	0	39.4-112		%REC	1	03/23/09 20:19
Surr: 2-Fluorobiphenyl	S	48.8	0	21.6-123		%REC	1	03/23/09 20:19
Surr: 2-Fluorophenol	S	59.7	0	27.7-78		%REC	1	03/23/09 20:19
Surr: Nitrobenzene-d5	S	54.0	0	36.9-89.6		%REC	1	03/23/09 20:19
Surr: Phenol-d5	S	55.6	0	46.1-73.5		%REC	1	03/23/09 20:19
Surr: Terphenyl-d14	S	48.6	0	55.8-111	S	%REC	1	03/23/09 20:19

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		ug, Total	1	03/23/09 20:19
Acenaphthylene	A	ND	0.22	1.0		ug, Total	1	03/23/09 20:19
Anthracene	A	ND	0.27	1.0		ug, Total	1	03/23/09 20:19
Benzo[a]anthracene	A	ND	0.47	1.0		ug, Total	1	03/23/09 20:19
Benzo[a]pyrene	A	ND	0.38	1.0		ug, Total	1	03/23/09 20:19
Benzo[b]fluoranthene	A	ND	0.44	1.0		ug, Total	1	03/23/09 20:19
Benzo[g,h,i]perylene	A	ND	0.72	1.0		ug, Total	1	03/23/09 20:19
Benzo[k]fluoranthene	A	ND	0.8	1.0		ug, Total	1	03/23/09 20:19
Chrysene	A	ND	0.57	1.0		ug, Total	1	03/23/09 20:19
Dibenz[a,h]anthracene	A	ND	0.54	1.0		ug, Total	1	03/23/09 20:19
Fluoranthene	A	ND	0.39	1.0		ug, Total	1	03/23/09 20:19
Fluorene	A	ND	0.25	1.0		ug, Total	1	03/23/09 20:19
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		ug, Total	1	03/23/09 20:19
Naphthalene	A	ND	0.16	1.0		ug, Total	1	03/23/09 20:19
Phenanthrene	A	ND	0.27	1.0		ug, Total	1	03/23/09 20:19
Pyrene	A	ND	0.44	1.0		ug, Total	1	03/23/09 20:19
Surr: Nitrobenzene-d5	S	54.0	0	36.9-89.6		%REC	1	03/23/09 20:19
Surr: 2-Fluorobiphenyl	S	48.8	0	21.6-123		%REC	1	03/23/09 20:19
Surr: Terphenyl-d14	S	48.6	0	55.8-111	S	%REC	1	03/23/09 20:19

5/11/09

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-06B  
**Collection Date:** 03/10/09 11:26  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
1,2,4-Trichlorobenzene	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
1,2-Dichlorobenzene	A	ND	0.7	10		µg, Total	1	03/23/09 20:45
1,3-Dichlorobenzene	A	ND	0.8	10		µg, Total	1	03/23/09 20:45
1,4-Dichlorobenzene	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
2,4,5-Trichlorophenol	A	ND	1.5	10		µg, Total	1	03/23/09 20:45
2,4,6-Trichlorophenol	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
2,4-Dichlorophenol	A	ND	0.7	10		µg, Total	1	03/23/09 20:45
2,4-Dimethylphenol	A	ND	0.8	10		µg, Total	1	03/23/09 20:45
2,4-Dinitrophenol	A	ND	9.4	50		µg, Total	1	03/23/09 20:45
2,4-Dinitrotoluene	A	ND	0.8	10		µg, Total	1	03/23/09 20:45
2,6-Dinitrotoluene	A	ND	1.1	10		µg, Total	1	03/23/09 20:45
2-Chloronaphthalene	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
2-Chlorophenol	A	ND	0.7	10		µg, Total	1	03/23/09 20:45
2-Methylnaphthalene	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
2-Methylphenol	A	ND	0.7	10		µg, Total	1	03/23/09 20:45
2-Nitroaniline	A	ND	1	50		µg, Total	1	03/23/09 20:45
2-Nitrophenol	A	ND	1	10		µg, Total	1	03/23/09 20:45
3,3'-Dichlorobenzidine	A	ND	0.7	50		µg, Total	1	03/23/09 20:45
3-Nitroaniline	A	ND	1.3	50		µg, Total	1	03/23/09 20:45
3/4-Methylphenol	A	ND	0.8	10		µg, Total	1	03/23/09 20:45
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		µg, Total	1	03/23/09 20:45
4-Bromophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
4-Chloro-3-methylphenol	A	ND	1.2	20		µg, Total	1	03/23/09 20:45
4-Chloroaniline	A	ND	1	10		µg, Total	1	03/23/09 20:45
4-Chlorophenyl phenyl ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
4-Nitroaniline	A	ND	1.7	50		µg, Total	1	03/23/09 20:45
4-Nitrophenol	A	ND	4.3	50		µg, Total	1	03/23/09 20:45
Bis(2-chloroethoxy)methane	A	ND	1	10		µg, Total	1	03/23/09 20:45
Bis(2-chloroethyl)ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		µg, Total	1	03/23/09 20:45
Butyl benzyl phthalate	A	ND	1	10		µg, Total	1	03/23/09 20:45
Carbazole	A	ND	1.2	10		µg, Total	1	03/23/09 20:45
Di-n-butyl phthalate	A	ND	1.2	10		µg, Total	1	03/23/09 20:45
Di-n-octyl phthalate	A	ND	1.1	10		µg, Total	1	03/23/09 20:45
Dibenzofuran	A	ND	0.8	10		µg, Total	1	03/23/09 20:45
Diethyl phthalate	A	ND	1.1	10		µg, Total	1	03/23/09 20:45
Dimethyl phthalate	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
Hexachlorobenzene	A	ND	0.9	10		µg, Total	1	03/23/09 20:45

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**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #6 TOX 2 INFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-06B  
**Collection Date:** 03/10/09 11:26  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
Hexachlorocyclopentadiene	A	ND	0.6	10		µg, Total	1	03/23/09 20:45
Hexachloroethane	A	ND	0.9	10		µg, Total	1	03/23/09 20:45
Isophorone	A	ND	1	10		µg, Total	1	03/23/09 20:45
N-Nitrosodi-n-propylamine	A	ND	1	10		µg, Total	1	03/23/09 20:45
N-Nitrosodiphenylamine	A	ND	0.7	10		µg, Total	1	03/23/09 20:45
Nitrobenzene	A	ND	1	10		µg, Total	1	03/23/09 20:45
Pentachlorophenol	A	ND	1.3	50		µg, Total	1	03/23/09 20:45
Phenol	A	ND	0.4	10		µg, Total	1	03/23/09 20:45
Surr: 2,4,6-Tribromophenol	S	81.4	0	39.4-112		%REC	1	03/23/09 20:45
Surr: 2-Fluorobiphenyl	S	62.4	0	21.6-123		%REC	1	03/23/09 20:45
Surr: 2-Fluorophenol	S	69.6	0	27.7-78		%REC	1	03/23/09 20:45
Surr: Nitrobenzene-d5	S	60.3	0	36.9-89.6		%REC	1	03/23/09 20:45
Surr: Phenol-d5	S	64.2	0	46.1-73.5		%REC	1	03/23/09 20:45
Surr: Terphenyl-d14	S	53.3	0	55.8-111	S	%REC	1	03/23/09 20:45

PAHS BY GC/MS-SIM Method: TO-13		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0		µg, Total	1	03/23/09 20:45
Acenaphthylene	A	ND	0.22	1.0		µg, Total	1	03/23/09 20:45
Anthracene	A	ND	0.27	1.0		µg, Total	1	03/23/09 20:45
Benzo[a]anthracene	A	ND	0.47	1.0		µg, Total	1	03/23/09 20:45
Benzo[a]pyrene	A	ND	0.38	1.0		µg, Total	1	03/23/09 20:45
Benzo[b]fluoranthene	A	ND	0.44	1.0		µg, Total	1	03/23/09 20:45
Benzo[g,h,i]perylene	A	ND	0.72	1.0		µg, Total	1	03/23/09 20:45
Benzo[k]fluoranthene	A	ND	0.8	1.0		µg, Total	1	03/23/09 20:45
Chrysene	A	ND	0.57	1.0		µg, Total	1	03/23/09 20:45
Dibenz[a,h]anthracene	A	ND	0.54	1.0		µg, Total	1	03/23/09 20:45
Fluoranthene	A	ND	0.39	1.0		µg, Total	1	03/23/09 20:45
Fluorene	A	ND	0.25	1.0		µg, Total	1	03/23/09 20:45
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0		µg, Total	1	03/23/09 20:45
Naphthalene	A	1.1	0.16	1.0		µg, Total	1	03/23/09 20:45
Phenanthrene	A	ND	0.27	1.0		µg, Total	1	03/23/09 20:45
Pyrene	A	ND	0.44	1.0		µg, Total	1	03/23/09 20:45
Surr: Nitrobenzene-d5	S	60.3	0	36.9-89.6		%REC	1	03/23/09 20:45
Surr: 2-Fluorobiphenyl	S	62.4	0	21.6-123		%REC	1	03/23/09 20:45
Surr: Terphenyl-d14	S	53.3	0	55.8-111	S	%REC	1	03/23/09 20:45

5/10/09

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-07B  
**Collection Date:** 03/10/09 11:50  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
								Prep Date/Time: 03/17/09 12:33 Analyst: BEM
1,2,4-Trichlorobenzene	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
1,2-Dichlorobenzene	A	ND	0.7	10		ug, Total	1	03/23/09 21:11
1,3-Dichlorobenzene	A	ND	0.8	10		ug, Total	1	03/23/09 21:11
1,4-Dichlorobenzene	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
2,4,5-Trichlorophenol	A	ND	1.5	10		ug, Total	1	03/23/09 21:11
2,4,6-Trichlorophenol	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
2,4-Dichlorophenol	A	ND	0.7	10		ug, Total	1	03/23/09 21:11
2,4-Dimethylphenol	A	ND	0.8	10		ug, Total	1	03/23/09 21:11
2,4-Dinitrophenol	A	ND	9.4	50		ug, Total	1	03/23/09 21:11
2,4-Dinitrotoluene	A	ND	0.8	10		ug, Total	1	03/23/09 21:11
2,6-Dinitrotoluene	A	ND	1.1	10		ug, Total	1	03/23/09 21:11
2-Chloronaphthalene	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
2-Chlorophenol	A	ND	0.7	10		ug, Total	1	03/23/09 21:11
2-Methylnaphthalene	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
2-Methylphenol	A	ND	0.7	10		ug, Total	1	03/23/09 21:11
2-Nitroaniline	A	ND	1	50		ug, Total	1	03/23/09 21:11
2-Nitrophenol	A	ND	1	10		ug, Total	1	03/23/09 21:11
3,3'-Dichlorobenzidine	A	ND	0.7	50		ug, Total	1	03/23/09 21:11
3-Nitroaniline	A	ND	1.3	50		ug, Total	1	03/23/09 21:11
3/4-Methylphenol	A	ND	0.8	10		ug, Total	1	03/23/09 21:11
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		ug, Total	1	03/23/09 21:11
4-Bromophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
4-Chloro-3-methylphenol	A	ND	1.2	20		ug, Total	1	03/23/09 21:11
4-Chloroaniline	A	ND	1	10		ug, Total	1	03/23/09 21:11
4-Chlorophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
4-Nitroaniline	A	ND	1.7	50		ug, Total	1	03/23/09 21:11
4-Nitrophenol	A	ND	4.3	50		ug, Total	1	03/23/09 21:11
Bis(2-chloroethoxy)methane	A	ND	1	10		ug, Total	1	03/23/09 21:11
Bis(2-chloroethyl)ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		ug, Total	1	03/23/09 21:11
Butyl benzyl phthalate	A	ND	1	10		ug, Total	1	03/23/09 21:11
Carbazole	A	ND	1.2	10		ug, Total	1	03/23/09 21:11
Di-n-butyl phthalate	A	ND	1.2	10		ug, Total	1	03/23/09 21:11
Di-n-octyl phthalate	A	ND	1.1	10		ug, Total	1	03/23/09 21:11
Dibenzofuran	A	ND	0.8	10		ug, Total	1	03/23/09 21:11
Diethyl phthalate	A	ND	1.1	10		ug, Total	1	03/23/09 21:11
Dimethyl phthalate	A	ND	0.9	10		ug, Total	1	03/23/09 21:11
Hexachlorobenzene	A	ND	0.9	10		ug, Total	1	03/23/09 21:11

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #7 TOX 2 INFLUENT (DUP)  
**Sample Description:**  
**Sample Matrix:** Air      **Work Order / ID:** ME0903402-07B  
**Collection Date:** 03/10/09 11:50  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE Method: TO-13MOD		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Hexachlorobutadiene	A	ND	0.9	10	µg, Total	1	03/23/09 21:11	
Hexachlorocyclopentadiene	A	ND	0.6	10	µg, Total	1	03/23/09 21:11	
Hexachloroethane	A	ND	0.9	10	µg, Total	1	03/23/09 21:11	
Isophorone	A	ND	1	10	µg, Total	1	03/23/09 21:11	
N-Nitrosodi-n-propylamine	A	ND	1	10	µg, Total	1	03/23/09 21:11	
N-Nitrosodiphenylamine	A	ND	0.7	10	µg, Total	1	03/23/09 21:11	
Nitrobenzene	A	ND	1	10	µg, Total	1	03/23/09 21:11	
Pentachlorophenol	A	ND	1.3	50	µg, Total	1	03/23/09 21:11	
Phenol	A	ND	0.4	10	µg, Total	1	03/23/09 21:11	
Surr: 2,4,6-Tribromophenol	S	77.1	0	39.4-112	%REC	1	03/23/09 21:11	
Surr: 2-Fluorobiphenyl	S	58.1	0	21.6-123	%REC	1	03/23/09 21:11	
Surr: 2-Fluorophenol	S	70.6	0	27.7-78	%REC	1	03/23/09 21:11	
Surr: Nitrobenzene-d5	S	61.2	0	36.9-89.6	%REC	1	03/23/09 21:11	
Surr: Phenol-d5	S	65.7	0	46.1-73.5	%REC	1	03/23/09 21:11	
Surr: Terphenyl-d14	S	52.1	0	55.8-111	S	%REC	1	03/23/09 21:11

PAHS BY GC/MS-SIM		Method: TO-13 Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
Acenaphthene	A	ND	0.21	1.0	µg, Total	1	03/23/09 21:11	
Acenaphthylene	A	ND	0.22	1.0	µg, Total	1	03/23/09 21:11	
Anthracene	A	ND	0.27	1.0	µg, Total	1	03/23/09 21:11	
Benzo[a]anthracene	A	ND	0.47	1.0	µg, Total	1	03/23/09 21:11	
Benzo[a]pyrene	A	ND	0.38	1.0	µg, Total	1	03/23/09 21:11	
Benzo[b]fluoranthene	A	ND	0.44	1.0	µg, Total	1	03/23/09 21:11	
Benzo[g,h,i]perylene	A	ND	0.72	1.0	µg, Total	1	03/23/09 21:11	
Benzo[k]fluoranthene	A	ND	0.8	1.0	µg, Total	1	03/23/09 21:11	
Chrysene	A	ND	0.57	1.0	µg, Total	1	03/23/09 21:11	
Dibenz[a,h]anthracene	A	ND	0.54	1.0	µg, Total	1	03/23/09 21:11	
Fluoranthene	A	ND	0.39	1.0	µg, Total	1	03/23/09 21:11	
Fluorene	A	ND	0.25	1.0	µg, Total	1	03/23/09 21:11	
Indeno[1,2,3cd]pyrene	A	ND	0.56	1.0	µg, Total	1	03/23/09 21:11	
Naphthalene	A	ND	0.16	1.0	µg, Total	1	03/23/09 21:11	
Phenanthrene	A	ND	0.27	1.0	µg, Total	1	03/23/09 21:11	
Pyrene	A	ND	0.44	1.0	µg, Total	1	03/23/09 21:11	
Surr: Nitrobenzene-d5	S	61.2	0	36.9-89.6	%REC	1	03/23/09 21:11	
Surr: 2-Fluorobiphenyl	S	58.1	0	21.6-123	%REC	1	03/23/09 21:11	
Surr: Terphenyl-d14	S	52.1	0	55.8-111	S	%REC	1	03/23/09 21:11

47109

## ANALYTICAL RESULTS

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air

**Work Order / ID:** ME0903402-08B  
**Collection Date:** 03/10/09 11:35  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method:	Prep Date/Time: 03/17/09 12:33 Analyst: BEM					
1,2,4-Trichlorobenzene	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
1,2-Dichlorobenzene	A	ND	0.7	10		ug, Total	1	03/23/09 21:37
1,3-Dichlorobenzene	A	ND	0.8	10		ug, Total	1	03/23/09 21:37
1,4-Dichlorobenzene	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
2,4,5-Trichlorophenol	A	ND	1.5	10		ug, Total	1	03/23/09 21:37
2,4,6-Trichlorophenol	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
2,4-Dichlorophenol	A	ND	0.7	10		ug, Total	1	03/23/09 21:37
2,4-Dimethylphenol	A	ND	0.8	10		ug, Total	1	03/23/09 21:37
2,4-Dinitrophenol	A	ND	9.4	50		ug, Total	1	03/23/09 21:37
2,4-Dinitrotoluene	A	ND	0.8	10		ug, Total	1	03/23/09 21:37
2,6-Dinitrotoluene	A	ND	1.1	10		ug, Total	1	03/23/09 21:37
2-Chloronaphthalene	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
2-Chlorophenol	A	ND	0.7	10		ug, Total	1	03/23/09 21:37
2-Methylnaphthalene	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
2-Methylphenol	A	ND	0.7	10		ug, Total	1	03/23/09 21:37
2-Nitroaniline	A	ND	1	50		ug, Total	1	03/23/09 21:37
2-Nitrophenol	A	ND	1	10		ug, Total	1	03/23/09 21:37
3,3'-Dichlorobenzidine	A	ND	0.7	50		ug, Total	1	03/23/09 21:37
3-Nitroaniline	A	ND	1.3	50		ug, Total	1	03/23/09 21:37
3/4-Methylphenol	A	ND	0.8	10		ug, Total	1	03/23/09 21:37
4,6-Dinitro-2-methylphenol	A	ND	1.1	50		ug, Total	1	03/23/09 21:37
4-Bromophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
4-Chloro-3-methylphenol	A	ND	1.2	20		ug, Total	1	03/23/09 21:37
4-Chloroaniline	A	ND	1	10		ug, Total	1	03/23/09 21:37
4-Chlorophenyl phenyl ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
4-Nitroaniline	A	ND	1.7	50		ug, Total	1	03/23/09 21:37
4-Nitrophenol	A	ND	4.3	50		ug, Total	1	03/23/09 21:37
Bis(2-chloroethoxy)methane	A	ND	1	10		ug, Total	1	03/23/09 21:37
Bis(2-chloroethyl)ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
Bis(2-chloroisopropyl)ether	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
Bis(2-ethylhexyl)phthalate	A	ND	1.1	10		ug, Total	1	03/23/09 21:37
Butyl benzyl phthalate	A	ND	1	10		ug, Total	1	03/23/09 21:37
Carbazole	A	ND	1.2	10		ug, Total	1	03/23/09 21:37
Di-n-butyl phthalate	A	ND	1.2	10		ug, Total	1	03/23/09 21:37
Di-n-octyl phthalate	A	ND	1.1	10		ug, Total	1	03/23/09 21:37
Dibenzofuran	A	ND	0.8	10		ug, Total	1	03/23/09 21:37
Diethyl phthalate	A	ND	1.1	10		ug, Total	1	03/23/09 21:37
Dimethyl phthalate	A	ND	0.9	10		ug, Total	1	03/23/09 21:37
Hexachlorobenzene	A	ND	0.9	10		ug, Total	1	03/23/09 21:37

5/11/09

**ANALYTICAL RESULTS**

Date: Wednesday, March 25, 2009

**Client:** MWH, Inc.  
**Client Project:** March 2009 - Monthly Air / ACS  
**Client Sample ID:** #8 TOX 2 EFFLUENT  
**Sample Description:**  
**Sample Matrix:** Air      **Work Order / ID:** ME0903402-08B  
**Collection Date:** 03/10/09 11:35  
**Date Received:** 03/10/09 15:30

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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SEMI-VOLATILE ORGANIC ANALYTE		Method: TO-13MOD						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
		A	ND	0.9	10	ug, Total	1	03/23/09 21:37
Hexachlorobutadiene		A	ND	0.6	10	ug, Total	1	03/23/09 21:37
Hexachlorocyclopentadiene		A	ND	0.9	10	ug, Total	1	03/23/09 21:37
Hexachloroethane		A	ND	1	10	ug, Total	1	03/23/09 21:37
Isophorone		A	ND	1	10	ug, Total	1	03/23/09 21:37
N-Nitrosodi-n-propylamine		A	ND	1	10	ug, Total	1	03/23/09 21:37
N-Nitrosodiphenylamine		A	ND	0.7	10	ug, Total	1	03/23/09 21:37
Nitrobenzene		A	ND	1	10	ug, Total	1	03/23/09 21:37
Pentachlorophenol		A	ND	1.3	50	ug, Total	1	03/23/09 21:37
Phenol		A	ND	0.4	10	ug, Total	1	03/23/09 21:37
<i>Surr: 2,4,6-Tribromophenol</i>	S	71.2	0	39.4-112		%REC	1	03/23/09 21:37
<i>Surr: 2-Fluorobiphenyl</i>	S	54.0	0	21.6-123		%REC	1	03/23/09 21:37
<i>Surr: 2-Fluorophenol</i>	S	62.6	0	27.7-78		%REC	1	03/23/09 21:37
<i>Surr: Nitrobenzene-d5</i>	S	59.2	0	36.9-89.6		%REC	1	03/23/09 21:37
<i>Surr: Phenol-d5</i>	S	60.4	0	46.1-73.5		%REC	1	03/23/09 21:37
<i>Surr: Terphenyl-d14</i>	S	45.1	0	55.8-111	S	%REC	1	03/23/09 21:37

PAHS BY GC/MS-SIM		Method: TO-13						
		Prep Date/Time: 03/17/09 12:33 Analyst: BEM						
		A	ND	0.21	1.0	ug, Total	1	03/23/09 21:37
Acenaphthene		A	ND	0.22	1.0	ug, Total	1	03/23/09 21:37
Acenaphthylene		A	ND	0.27	1.0	ug, Total	1	03/23/09 21:37
Anthracene		A	ND	0.47	1.0	ug, Total	1	03/23/09 21:37
Benzo[a]anthracene		A	ND	0.38	1.0	ug, Total	1	03/23/09 21:37
Benzo[a]pyrene		A	ND	0.44	1.0	ug, Total	1	03/23/09 21:37
Benzo[b]fluoranthene		A	ND	0.72	1.0	ug, Total	1	03/23/09 21:37
Benzo[g,h,i]perylene		A	ND	0.8	1.0	ug, Total	1	03/23/09 21:37
Chrysene		A	ND	0.57	1.0	ug, Total	1	03/23/09 21:37
Dibenz[a,h]anthracene		A	ND	0.54	1.0	ug, Total	1	03/23/09 21:37
Fluoranthene		A	ND	0.39	1.0	ug, Total	1	03/23/09 21:37
Fluorene		A	ND	0.25	1.0	ug, Total	1	03/23/09 21:37
Indeno[1,2,3cd]pyrene		A	ND	0.56	1.0	ug, Total	1	03/23/09 21:37
Naphthalene		A	1.8	0.16	1.0	ug, Total	1	03/23/09 21:37
Phenanthrene		A	ND	0.27	1.0	ug, Total	1	03/23/09 21:37
Pyrene		A	ND	0.44	1.0	ug, Total	1	03/23/09 21:37
<i>Surr: Nitrobenzene-d5</i>	S	59.2	0	36.9-89.6		%REC	1	03/23/09 21:37
<i>Surr: 2-Fluorobiphenyl</i>	S	54.0	0	21.6-123		%REC	1	03/23/09 21:37
<i>Surr: Terphenyl-d14</i>	S	45.1	0	55.8-111	S	%REC	1	03/23/09 21:37

## **APPENDIX C**

**ANNUAL SEDIMENT SAMPLE ANALYTICAL DATA – MARCH 24, 2009**

**ANALYTICAL RESULTS**

Date: Wednesday, April 01, 2009

**Client:** MWH, Inc.  
**Client Project:** ACS Sediment / Griffith, IN  
**Client Sample ID:** ACS-SEDIMENT-2009  
**Sample Description:**  
**Sample Matrix:** Solid

**Work Order / ID:** ME0903885-01  
**Collection Date:** 03/24/09 15:30  
**Date Received:** 03/24/09 16:53

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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PCB'S	Method: SW8082			Prep Date/Time: 03/30/09 05:50 Analyst: MLT				
Aroclor 1016	A	ND	2	33		µg/Kg	1	03/31/09 09:31
Aroclor 1221	A	ND	33	33		µg/Kg	1	03/31/09 09:31
Aroclor 1232	A	ND	33	33		µg/Kg	1	03/31/09 09:31
Aroclor 1242	A	ND	2.1	33		µg/Kg	1	03/31/09 09:31
Aroclor 1248	A	ND	3.7	33		µg/Kg	1	03/31/09 09:31
Aroclor 1254	A	57	3.3	33	NJ	µg/Kg	1	03/31/09 09:31
Aroclor 1260	A	ND	2.1	33		µg/Kg	1	03/31/09 09:31
Aroclor 1262	A	ND	33	33		µg/Kg	1	03/31/09 09:31
Aroclor 1268	A	ND	33	33		µg/Kg	1	03/31/09 09:31
Surr: Tetrachloro-m-xylene	S	55.1	0	19.9-131		%REC	1	03/31/09 09:31
Surr: Decachlorobiphenyl	S	45.0	0	17.9-149		%REC	1	03/31/09 09:31

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**Microbac**

## ANALYTICAL RESULTS

Date: Wednesday, April 01, 2009

<b>Client:</b>	MWH, Inc.
<b>Client Project:</b>	ACS Sediment / Griffith, IN
<b>Client Sample ID:</b>	ACS-SEDDUP01-2009
<b>Sample Description:</b>	
<b>Sample Matrix:</b>	Solid
	<b>Work Order / ID:</b> ME0903885-02
	<b>Collection Date:</b> 03/24/09 15:35
	<b>Date Received:</b> 03/24/09 16:53

Analyses	ST	Result	MDL	RL	Qual	Units	DF	Analyzed
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PCB'S	Method: SW8082			Prep Date/Time: 03/30/09 05:50 Analyst: MLT				
Aroclor 1016	A	ND	2	33		µg/Kg	1	03/31/09 09:55
Aroclor 1221	A	ND	33	33		µg/Kg	1	03/31/09 09:55
Aroclor 1232	A	ND	33	33		µg/Kg	1	03/31/09 09:55
Aroclor 1242	A	ND	2.1	33		µg/Kg	1	03/31/09 09:55
Aroclor 1248	A	ND	3.7	33		µg/Kg	1	03/31/09 09:55
Aroclor 1254	A	99	3.3	33	NJ	µg/Kg	1	03/31/09 09:55
Aroclor 1260	A	ND	2.1	33		µg/Kg	1	03/31/09 09:55
Aroclor 1262	A	ND	33	33		µg/Kg	1	03/31/09 09:55
Aroclor 1268	A	ND	33	33		µg/Kg	1	03/31/09 09:55
<i>Surr: Tetrachloro-m-xylene</i>	S	55.1	0	19.9-131		%REC	1	03/31/09 09:55
<i>Surr: Decachlorobiphenyl</i>	S	45.0	0	17.9-149		%REC	1	03/31/09 09:55

5/4/09